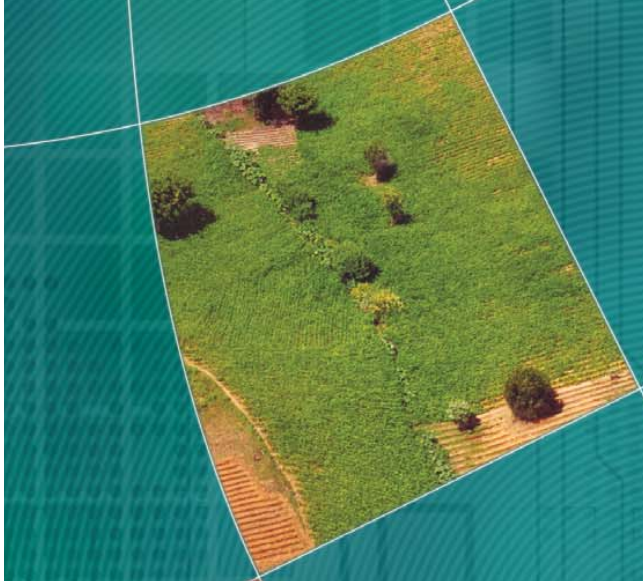
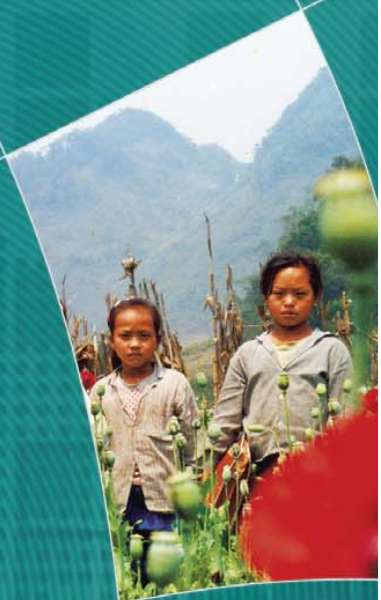
UNITED NATIONS
Office on Drugs and Crime

2004
WORLD DRUG REPORT

Volume 1: Analysis





Acknowledgements

This report was produced in the Research and Analysis section of UNODC and benefited from the work and expertise of many UNODC Staff Members around the world.

Core team:
Sandeep Chawla, Denis Destrebecq, Ayako Kagawa (maps), Suzanne Kunnen (desktop publishing), Thibault Le Pichon, Aruna Nathwani, Thomas Pietschmann, Wolfgang Rhomberg (database management), Ali Saadeddin (data entry), Johny Thomas (maps, graphs and desktop publishing) and Melissa Tullis.

Organizational and administrative support:
Yolanda Luna, Adrian Moicean, Jill Schurz and Gunilla Thorselius.

The team is grateful to all the colleagues who reviewed earlier drafts and provided valuable inputs and comments. The team would like to acknowledge in particular the work of UNODC Global Challenges section (GCS) on the Weighted Analysis on Drug Abuse Trends (WADAT) which was reflected in sections of the report presenting drug use trends and the methodology. Other contributions from GCS included: cannabis and ATS use prevalence estimates (Stefano Berterame and Riku Lehtovuori) and the section on injecting drug use and HIV/AIDS (Christian Kroll).

UNODC extends its appreciation to Member States for the reports and information that provided the basis of this edition of the World Drug Report. UNODC would also like to thank the Governments of Sweden and Italy for their continued financial support to this publication.

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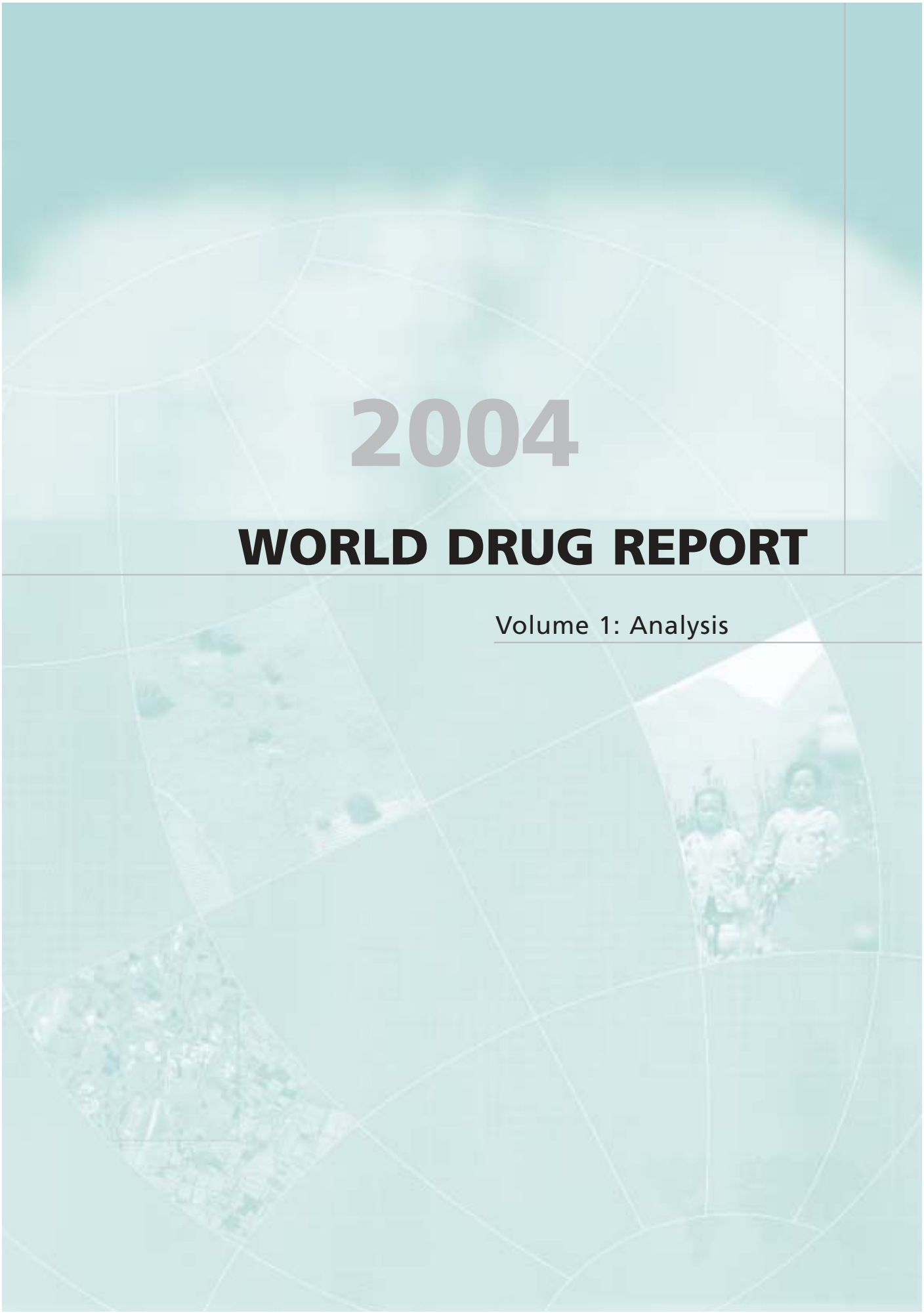

The Office for Drug Control and Crime Prevention (UNODCCP) became the Office on Drugs and Crime (UNODC) on 1 October 2002. The Office on Drugs and Crime includes the United Nations International Drug Control Programme (UNDCP).

United Nations Publication
Sales No. E.04.XI.16
ISBN 92-1-148185-6
Volume 1

The boundaries, names and designations used in all maps in this book do not imply official endorsement or acceptance by the United Nations.

This publication has not been formally edited.

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Preface

Illicit drugs have profound effects on individuals and societies worldwide. For individuals, drugs jeopardize health, livelihood and security. At the national level, their osmotic relationship with crime can make them both cause and consequence of conflict, weak governance and underdevelopment. Poor countries are particularly vulnerable and need help, as they lack the resources to break out of the vicious circle. The global dimension of the drug problem is equally important: illicit drug markets know no borders and their transnational nature puts them beyond the reach of any single government, rich or poor.

While the cross-border dimension of drug trafficking has long been understood and translated into a highly developed system of international cooperation, in recent years the opening of world markets has accentuated this trait. More than ever, a multilateral and coordinated response is needed. In the United Nations Millennium Declaration, Member States resolved to redouble efforts to provide such a response. A year ago, governments reaffirmed their commitment, made at the special session of the UN General Assembly (UNGASS) in 1998, to make significant progress in countering the world drug problem by the year 2008. They noted that the "shared responsibility" (namely, the involvement of countries of origin as well as of destination), could only be achieved by means of a "balanced approach" (giving demand as much attention as supply), balancing preventive measures and law enforcement interventions.

This year's *World Drug Report* shows that though Member States have made significant progress in some areas, there are others where effective measures are still needed. Drug abuse remains at an unacceptable level.

There is no easy road to a world less tormented by illicit drugs. If we want to end the suffering, however, we can together do a lot more than at present:

- *First*, the drug problem must be tackled in the broader context of human security and sustainable development. It will take more than counter-narcotics operations (necessary as they may be) to contain the drug problem - the whole of society must be involved.

- *Secondly*, responses to the drugs and crime nexus must become more integrated. Criminals expropriate huge sums of money from poor farmers and poor addicts alike. The United Nations *Office on Drugs and Crime* (UNODC) recently merged the drugs and crime programmes within one internal structure and the new UN conventions against transnational organized crime and corruption offer unique prospects of progress on the drug control front as well.

- *Thirdly*, drug control programmes must better attune themselves to the dynamics of drug markets: a better understanding of underlying trends, more robust data, increased research and a deeper scientific approach to the problem are all required.

I hope that readers will find this 2004 edition of the *World Drug Report* a useful contribution.

Antonio Maria Costa
Executive Director
United Nations *Office on Drugs and Crime*

Introduction

The United Nations Office on Drugs and Crime (UNODC) is a global leader in the fight against illicit drugs and international crime. UNODC has approximately 500 staff members worldwide. Its headquarters are in Vienna and it has 21 field offices as well as a liaison office in New York. UNODC relies on voluntary contributions, mainly from governments, for 90 per cent of its budget. The three pillars of the UNODC work programme are:

- Research and analytical work to increase knowledge and understanding of drugs and crime issues and expand the evidence-base for policy and operational decisions;

- Normative work to assist States in the ratification and implementation of the international treaties, the development of domestic legislation on drugs, crime and terrorism, and the provision of secretariat and substantive services to the treaty-based and governing bodies; and

- Field-based technical cooperation projects to enhance the capacity of Member States to counteract illicit drugs, crime and terrorism.

In 1998 the General Assembly gave UNODC the mandate to publish "comprehensive and balanced information about the world drug problem." Since then, the international community has recognized the importance of detailed, factual and objective information to the field of international drug control.

The United Nations *Office on Drugs and Crime* (UNODC) has published such assessments annually since 1999. This year UNODC introduces its first two volume edition of the *World Drug Report*, which merges the former *Global Illicit Drug Trends* publication and the World Drug Report. The consolidation of the two reports is designed to increase the breadth of analytical coverage, while maintaining the annual frequency of statistical output. The first volume covers market trends and provides in depth long term trend analysis, the second volume compiles detailed statistics on all of the drug markets. Together they provide the most complete picture yet of the international drug problem.

The aim of the present Report remains the same as previous years: to contribute to annual assessments by presenting supply (production and trafficking) and demand statistics and analysis on the evolution of the global illicit drug problem. However, by presenting a thorough consideration of the status of the world drug situation and through the presentation of long term trends, this year's report goes further than ever in providing an assessment of the world drug situation.

As in previous years, the present Report is based on data obtained primarily from the annual reports questionnaire (ARQ) sent by Governments to UNODC in 2003, supplemented by other sources when necessary and where available. Two of the main limitations herein are: (i) that ARQ reporting is not systematic enough, both in terms of number of countries responding and of content, and (ii) that most countries lack the adequate monitoring systems required to produce reliable, comprehensive and internationally comparable data. National monitoring systems are, however, improving and UNODC has contributed to this process over the last few years. (For more information on data sources and limitations please consult the Methodology section at the end of the report.)

Explanatory notes

This report has been reproduced without formal editing.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The names of territories and administrative areas are in italics.

The following abbreviations have been used in this report:

ARQ	Annual reports questionnaire
ATS	Amphetamine-type stimulants. Amphetamines (amphetamine, methamphetamine and related substances) and substances of the ecstasy group (ecstasy, MDMA, MDEA, MDA etc.)
CICAD	Inter-American Drug Abuse Control Commission
CIS	Commonwealth of Independent States
DEA	Drug Enforcement Administration (United States of America)
DELTA	UNODC Database for Estimates and Long-term Trends Analysis
DUMA	Drug Use Monitoring in Australia
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
ESPAD	European School Survey Project on Alcohol and other Drugs (Council of Europe)
F.O.	UNODC Field Office
ICMP	UNODC Global Illicit Crop Monitoring Programme
IDU	Injecting drug use
INCB	International Narcotics Control Board
INCSR	International Narcotics Control Strategy Report (United States of America)
Interpol/ICPO	International Criminal Police Organization
LSD	lysergic acid diethylamide
NAPOL	National Police
PCP	phencyclidine
UNAIDS	Joint and Co-sponsored United Nations Programme on Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
WADAT	Weighted Analysis on Drug Abuse Trends, referred to as Drug Abuse Trend Index in this report.
WCO	World Customs Organization
WHO	World Health Organization
Govt.	Government
u.	Unit
lt.	Litre
kg	Kilogram
ha	Hectare
mt	Metric ton

Executive Summary

This year the United Nations introduces its first two volume edition of the *World Drug Report*. The first volume covers market trends and provides in depth trend analysis. The second volume compiles detailed statistics on all of the drug markets. Together they provide another contribution of the United Nations Office on Drugs and Crime towards understanding the world drug problem.

Chapter 1: The world drug problem: A status report

The Policy Landscape

The multilateral drug control system is a very valuable piece of political capital, agreed upon through an incremental process spanning a century. Its legal framework is provided by the three international drug conventions[a]. Adherence to the conventions is almost universal, and most States Members of the United Nations have ratified them. The scope of control over drugs has broadened and deepened over the years, having begun with the regulation of licit production and trade and before extending to the goal of international cooperation against the multi-faceted problem of illicit drugs.

Though there has been an epidemic of drug abuse over the last half-century, its diffusion into the general population has been contained. Less than 3% of the global population (or 5% of the population aged 15 and above) - the annual prevalence rate of drug use today - is certainly evidence of containment, particularly when compared with the annual prevalence rate of 30% for tobacco. There are, however, three important caveats. First, there is no clear baseline with which to compare this 5% diffusion. Secondly, though the large majority of the population (95%) remains untouched by illicit drug use, some very susceptible segments of that population, particularly youth, have been seriously affected by it. Thirdly, while it can be argued that a diffusion of the epidemic in the general population has been contained, it cannot be argued that the epidemic has been stopped. Though considerable progress has been made, the overarching objective of the drug control conventions - restricting the use of psychoactive substances under international control to medical and scientific use - has not yet been achieved.

There is a powerful consensus among countries, however, that this is still a reachable goal. The consensus reaches across governments and public opinion in the vast majority of countries. Current levels of illicit drug use, together with the health consequences and criminal activities associated with it, have consistently been deemed unacceptable by both policy makers and public opinion. This is why the multilateral drug control system continues to enjoy almost universal adherence. Consideration of such an intensive and extensive level of consensus provides a crucial sense of perspective for evaluating the paradoxical actions of a small, yet very vocal, number of actors to break ranks and challenge the spirit of multilateralism.

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a) The Single Convention on Narcotic Drugs of 1961 (United Nations, *Treaty Series*, vol. 520, No.7515), the Convention on Psychotropic Substances of 1971 (*Ibid.*, vol. 1019, No.14956) and the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (*Ibid.*, vol.1582, No.27627).

The majority of governments, precisely because they still regard the drug conventions as relevant, have made continuous efforts to achieve better results in bringing the drug problem under control.

The Dynamics of World Drug Markets

What is the current level of drug use in the world?

The total number of drug users in the world is now estimated at some 185 million people, equivalent to 3% of the global population, or 4.7% of the population aged 15 to 64. The new estimates confirm that cannabis is the most widely used substance (close to 150 million people), followed by the ATS (about 30 million people for the amphetamines, primarily methamphetamine and amphetamine, and 8 million for ecstasy). Slightly more than 13 million people use cocaine, and 15 million use opiates (heroin, morphine, opium, synthetic opiates), including some 9 million who take heroin.

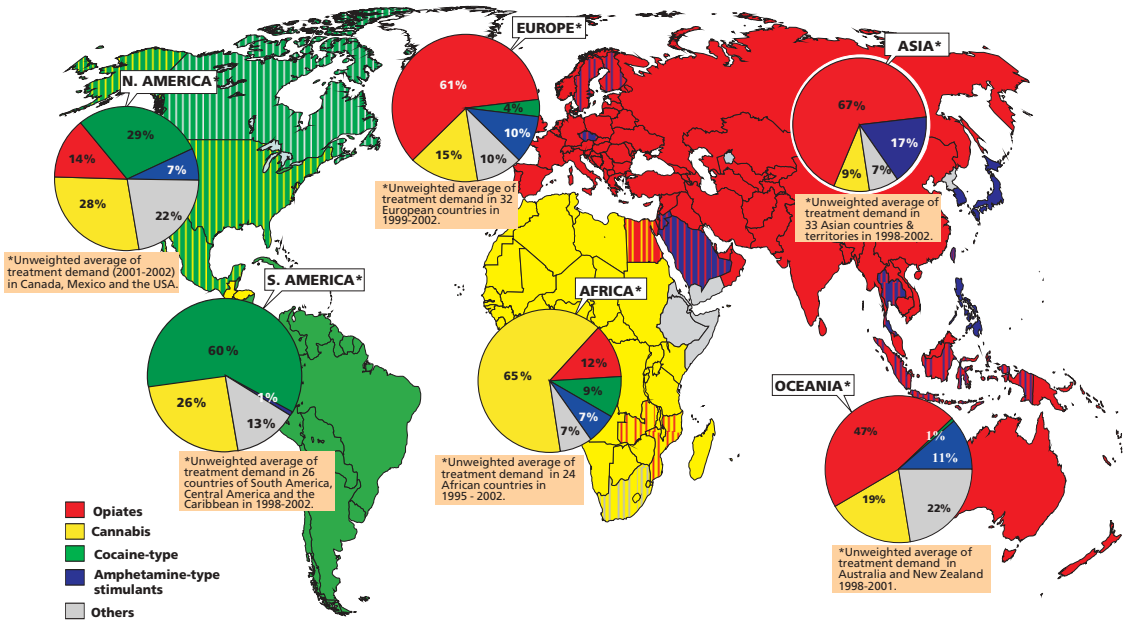
Extent of drug abuse (annual prevalence*) estimates 2001-2003

	All illicit drugs	Cannabis	Amphetamine-type		Cocaine	Opiates	of which heroin
			Amphetamines	Ecstasy			
(million people)	185	146.2	29.6	8.3	13.3	15.2	9.2
in % of global population	3.0%	2.3%	0.5%	0.1%	0.2%	0.2%	0.15%
in % of global population age 15-64	4.7%	3.7%	0.7%	0.2%	0.3%	0.4%	0.23%

* Annual prevalence is a measure of the number/percentage of people who have consumed an illicit drug at least once in the 12 month-period preceding the assessment.

Sources: UNODC, Annual Reports Questionnaire data, various Govt. reports, reports of regional bodies, UNODC estimates.
Remark: As drug users frequently take more than one substance (poly-drug use), the world total for all illicit drugs together is not equal to the sum of the estimates for each individual drug category.

Main problem drugs (as reflected in treatment demand), 1998-2002 (or latest year available)



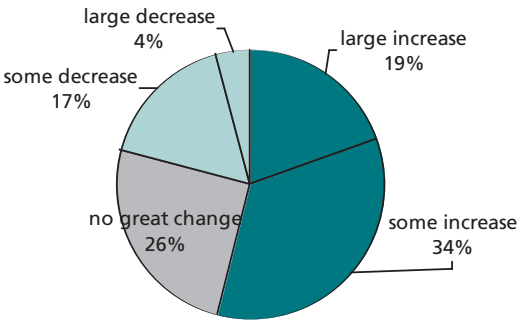
Source: UNODC, Annual Reports Questionnaire Data/DELTA and National Government Reports.

In terms of health impact, as measured by the demand for treatment services, opiates remain the most serious problem drug in the world. They account for 67% of drug treatment in Asia, 61% in Europe and 47% in Oceania. In South-East Asia, however, methamphetamine has become the main problem drug in the last decade. Cocaine still comes first in the Americas as a whole, but the number of admissions to treatment centres are now higher for heroin than cocaine in the USA. In Africa, cannabis continues to dominate treatment demand (65%).

How is the drug problem evolving?

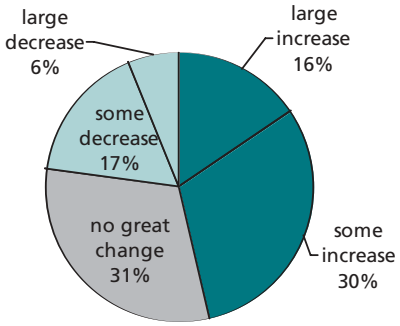
The spread of drug abuse may be losing momentum. There is a notable exception however: consumption of cannabis herb, the most commonly used illicit drug in the world, appears to be spreading at an accelerated pace. During the last decade, the highest increases, after cannabis, were for the ATS (mainly ecstasy), followed by cocaine and the opiates.

Global drug abuse trends in 2000
(based on information from 96 countries)



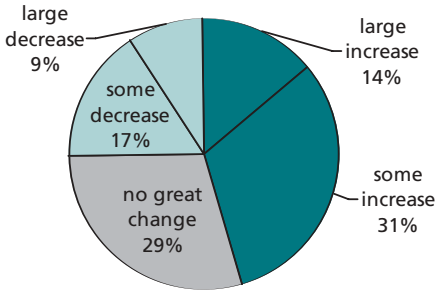
Source: UNODC, Annual Reports Questionnaire Data.

Global drug abuse trends in 2001
(based on information from 96 countries)



Source: UNODC, Annual Reports Questionnaire Data.

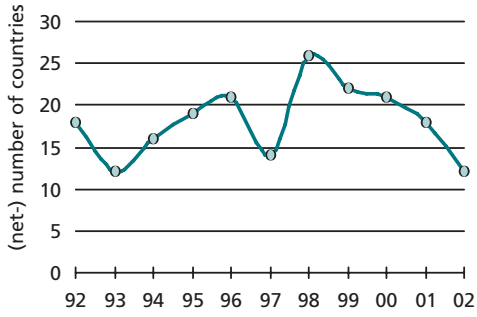
Global drug abuse trends in 2002
(based on information from 95 countries)



Source: UNODC, Annual Reports Questionnaire Data.

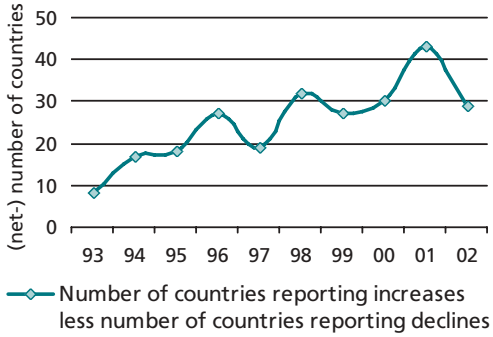
Heroin abuse trend, 1992 - 2002

Number of countries reporting increases less number of countries reporting stable/declining levels of abuse

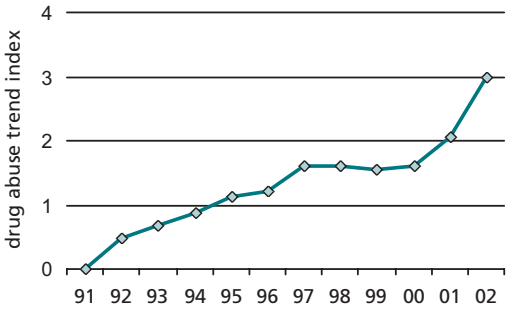


Cocaine abuse trends, 1993 - 2002

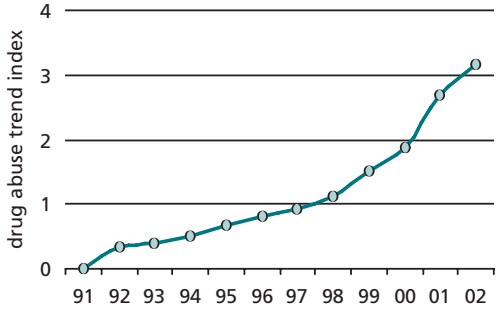
Number of countries reporting increase less number of countries reporting declining levels of cocaine abuse



Global Cannabis consumption trend: based on national experts' perceptions, 1992 - 2002

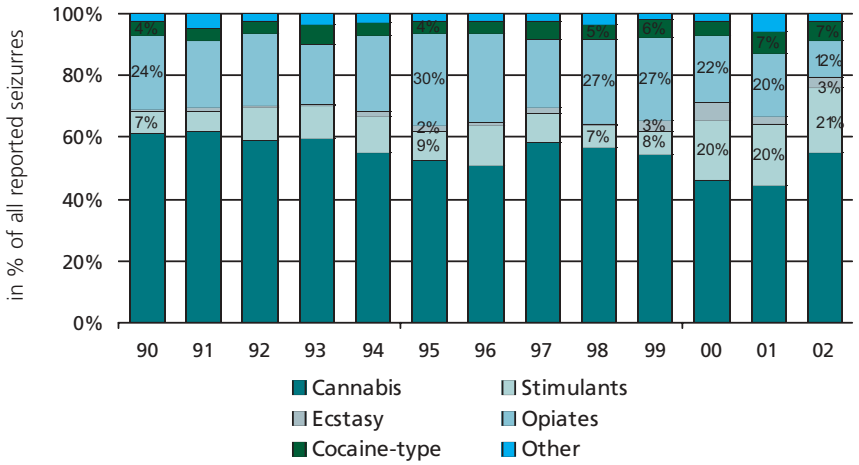


Global ATS consumption trend: based on national experts' perceptions, 1992 - 2002



The overall number of drug seizures has consistently increased since the early 1990s, but there were signs of stabilization or decline in 2002. Global seizure data for the period 1990-2000 show a decline in the relative importance of cannabis, the rapid emergence of ATS, an increase of opiates and an increase, followed by a stabilization, of cocaine.

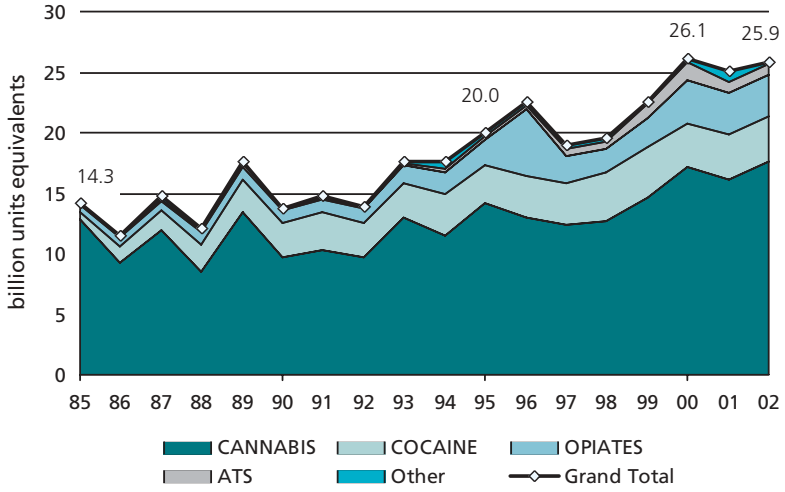
Proportion of seizure cases according to drug category, 1990 - 2002



Over a 10-year period, the quantities of illicit drugs seized have also increased as a whole. Ecstasy, depressants and amphetamine-type stimulants show the strongest increases. From 2001 to 2002, however, the quantities seized remained largely stable, with the exception of ecstasy. In terms of absolute quantities, drug seizures are consistently dominated by cannabis, followed by cocaine, opiates and then ATS.

The conversion of the quantities of drugs seized into unit equivalents (a typical dose taken by drug users to experience a 'high') facilitates more meaningful comparisons of seizures across drug categories. The converted figures reflect the strong increases of the 1990s (from 14 billion doses in 1990, to 26 billion in 2000), and signs of stabilization in 2001/2002. Seizures in unit terms are the highest in the Americas (10.4 billion doses), followed by Europe (7.4 billion), Asia (5.5 billion), Africa (2.4 billion) and Oceania (0.08 billion). On a per capita basis, however, the ranking changes to: the Americas (12.1 units or doses seized per capita), Europe (10.2), Africa (2.9), Oceania (2.6) and Asia (1.5). The relative importance of the Americas declined over the last two decades, while Europe's increased. Overall, cannabis remains by far the most frequently seized substance in terms of unit equivalents; in Africa, it accounted for 99% of all seizures in 2002. The Americas have the highest percentage of seizures of cocaine-type substances (31% in 2002), while Asia comes first for the proportion of opiates in seizures (43% in 2002). Seizures of ATS are dominant in Oceania (more than half of all seizures in that region in 2002).

Global seizures in unit equivalents



Global illicit production of opium (from which heroin is processed) has remained stable, at around 4,000 to 5,000 metric tons, since the early 1990s, but has become increasingly concentrated in Afghanistan. Coca cultivation (cocaine is extracted from the leaves of the coca bush) was stable during most of the 1990s, but has been steadily decreasing since 1999 (-30% from 1999 to 2003). There is unfortunately not enough data to establish any meaningful global illicit production trend for cannabis, which is now reportedly cultivated in more than 140 countries throughout the world. The situation is somewhat similar for ATS, although the spectacular progression in the number of seizures of illegal laboratories since the mid-1990s (from less than 1000 in 1995 to about 10,000 in 2002) is consistent with trends reported for ATS consumption.

The outlook for world drug markets

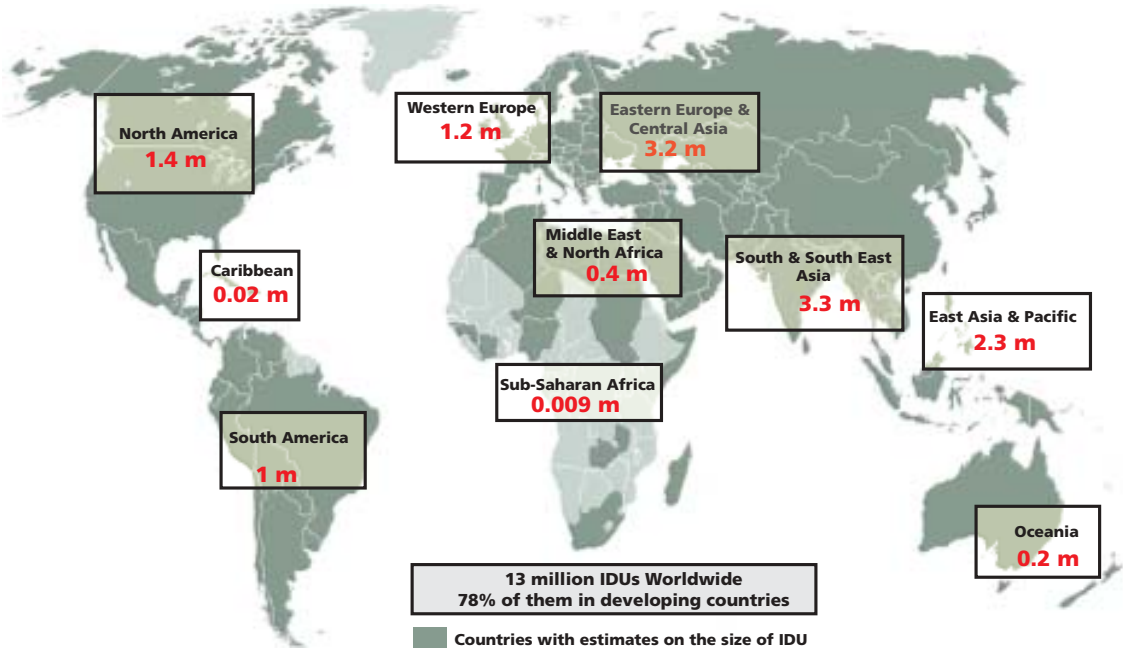
Taking into account trends in cultivation, production and consumption, the global heroin market has remained largely stable in 2002, but there are indications of a slight expansion in 2003 and a forecast for a larger one in 2004. As opium poppy cultivation is increasingly concentrated in Afghanistan, which produced three-quarters of the world's illicit opium in recent years, the fate of the world heroin market will largely depend on what happens in that country. The overall stabilization and decline in coca cultivation and cocaine production has been sustained for the fourth straight year. There is no indication that this trend will be reversed. Vigilant supply reduction efforts continue in Colombia, Peru and Bolivia. While there have been some setbacks, these efforts are likely to be sufficient

to sustain overall declines in cultivation and production. The cannabis market remains buoyant. In South America consumption is rising, and the market continues to expand in Western and Eastern Europe as well as in Africa. In the United Kingdom, Europe's largest cannabis market, use has stabilized at high levels over the last three years. Although the market for ATS is expanding and buoyant, there are some signs that the rate of increase is slowing down from the rapid increases that characterized virtually every sector of this market over the past ten years.

Injecting drug use and HIV/AIDS

Global estimates, provided by UNAIDS and WHO, indicate that by the end of 2003 between 34 and 46 million people were living with HIV/AIDS. Between 4.2 and 5.8 million people were infected in 2003 alone. In the same year, between 2.5 and 3.5 million people died of AIDS. While the bulk of new infections are due to unsafe sexual behaviour, the use of contaminated injection equipment among injecting drug users continues to fuel the pandemic, particularly in Eastern Europe, Central, South and South East Asia and Latin America. According to a review of the Reference Group on the Prevention and Care of HIV/AIDS Among Injecting Drug Users in 2003, information on the size of the injecting drug user population is available for 130 countries and territories, and data on the association of HIV infection with injecting drug use is available for 78. The group estimated that there are approximately 13 million injecting drug users worldwide, of which 8.8 million are in Eastern Europe, Central, South and South-East Asia, 1.4 million in North America, and 1 million in Latin America.

Estimates on the size of the IDU populations available in 130 countries and territories (1998 - 2003)



Source: Reference Groups on the Prevention and Care of HIV/AIDS Among Injecting Drug Users, 2002.

Conceptual advances in drug control

Despite favourable comparison with the public health disaster created by the largely uncontrolled tobacco industry, drug control results still fall short with respect to the ambitions enshrined in the UN conventions. Further steps towards resolving the drug control equation are required and possible. Since drug control proceeds essentially by trial and error, there have been many conceptual advances that have found practical applications and yielded good results over the years. A number of recent developments offer the prospect of better results.

A holistic approach

Addressing the drug problem in a broader sustainable development context

The drug problem has a negative impact on the functioning of societies as a whole. It can hinder development programmes and compromise peacemaking and reconstruction efforts in countries torn by civil war. In turn, poverty, strife and feeble governance are fertile ground for drug production, trafficking and abuse. Those various dimensions can become so interlocked that getting out of the vicious circle they create can only be accomplished through a comprehensive approach. Confined for too long to special programmes handled by specialized agencies, drug control priorities are now finding their way into the mainstream of the socio-economic agenda.

Starting at community level, this broader understanding of the socio-economic dimensions of the drug problem must notably be reflected in a society-wide approach. Public institutions cannot do everything. Interventions are far more effective when they are joined by the various actors in civil society (such as families, non-governmental organizations, and the media) in a common purpose and programme.

Providing an integrated response to the drugs and crime nexus

The overlaps between the twin sectors of drugs and crime control have increased and the integration of programmes is progressing, as exemplified by the recent merger of the two within UNODC. The connections between drug trafficking, organized crime and, to some extent, the financing of terrorism, have been brought to the forefront of international attention. The recent enrichment of the multilateral system with a new set of ground-breaking instruments against transnational organized crime, trafficking in human beings, smuggling of migrants, trafficking in firearms and corruption is opening the way for potentially significant advances in the fight against drugs and crime.

Addressing the drugs and crime nexus under the new paradigm of human security

Stemming from the 2000 UN Millennium Summit, the work of the Commission on Human Security is advancing a new paradigm of security that would complement the fundamental concepts of human development and human rights. The notion of 'human security' that encapsulates this new paradigm can provide a much needed conceptual link between drugs/crime control and sustainable development policies.

A more synergistic approach

An ongoing regeneration of drug control strategies is expected to improve their efficacy in the coming years. The 1998 UNGASS stated the importance of integrated and balanced approaches to the drug problem. In 2003, governments called for a comprehensive strategy, as well as further development of evidence-based initiatives and of data collection, analysis and evaluation tools to support them.

There remain huge *terras incognitas* in drug-related data and statistics, especially in developing countries. Also, still little is known about the structure and dynamics of drug markets at national, regional and global levels. There is a pressing need to fill that knowledge gap in order to develop more synergistic drug control strategies. The deficiency of compartmentalized sectorial and geographical approaches must be addressed.

Illicit drugs are commodities at the centre of lucrative, clandestine and transnational markets. Albeit illegal, these markets obey basic supply and demand rules and respond to stimuli and pressures. Understanding the rules will help to better conceive the kind of pressures that could break them. Both more efforts to improve drug related data collection and analysis, as well as vigorous research programme into the way drug markets are structured, operate and evolve are required.

A more dynamic approach

Understanding and controlling drug epidemics

Though drugs are commodities, their use diffuses into susceptible segments of the population like infectious diseases. The term 'drug epidemics' thus offers a useful analogy. The powerful dynamics created by the combination of the incentives and behavior of a ruthless market with the contagious characteristics of an epidemic explain why drug use can expand so rapidly and become so difficult to stem. Since young people are particularly vulnerable, it is important to monitor closely the prevalence, incidence and evolution of illicit drug use among them.

Analysis of, and responses to, the drug problem have so far been too static. Both tend to treat the phenomenon as essentially linear. Fine-tuning and sequencing drug control interventions to maximize their effectiveness would require the development of dynamic, non-linear models of the drug problem. Understanding how drug epidemics evolve and how feedback effects can alter their evolution, would help to better balance and time interventions. It would also help to allocate resources across sectors and over time, significantly improving the cost-effectiveness of drug control strategies. Research on that topic has started. Further work is needed to produce and validate models that would have an operational value.

Chapter 2: Trends

Opium / Heroin Market

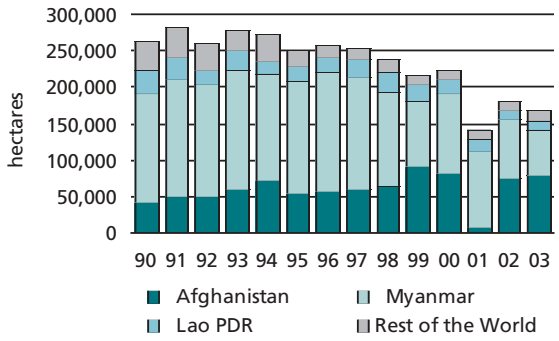
Production

At the global level, illicit opium poppy cultivation declined 6% to 169,000 ha in 2003, equivalent to a potential heroin production of approximately 480 tons. Opium poppy cultivation is now 40% less than in the early 1990s, when it was approximately 270,000 ha. However, the distribution of cultivation has changed over the past decade, with a decline in the low opium yield areas of South-East Asia and an increase in the high opium yield areas of Afghanistan. In 2003, more than 90% of the illicit cultivation of opium poppy took place in three countries: Afghanistan, Myanmar and Laos.

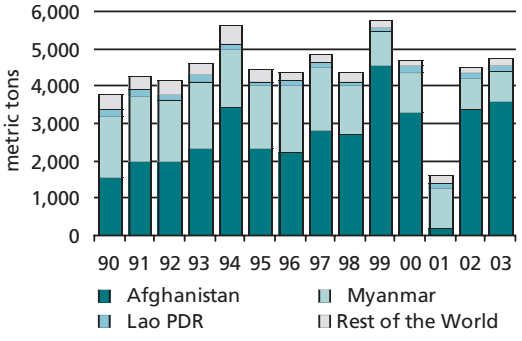
An increase of cultivation in Afghanistan, combined with a higher opium yield (45 kg/ha) than in South-East Asia (13 kg/ha), resulted in an overall increase of 5% of global illicit opium production between 2002 and 2003. In 2003, the 3,600 tons of opium produced in Afghanistan (the second highest opium production in Afghanistan's history), provided more than three-quarters of the world's illicit opium supply.

The potential farmgate value of opium production in 2003 at the global level was estimated at about US$1.2 billion. More than 85% of this amount was made in Afghanistan. The amount of opium poppy cultivation in Afghanistan in 2004 will continue determining the level of the world's supply of illicit opium and heroin. The results

Global opium poppy cultivation 1990-2003 (ha)



Global opium production 1990-2003 (metric tons)

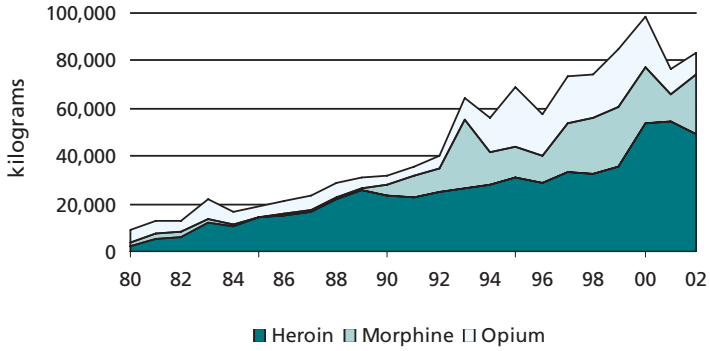


of the Afghan farmers' intention survey conducted by UNODC and the Afghan Government in October 2003, the time of planting for the 2004 opium poppy season, indicated that over two-thirds of the opium farmers interviewed intended to increase their level of opium poppy cultivation in 2004; only a few stated an intention to decrease.

Trafficking

Global seizures of opiates (heroin, morphine and opium expressed in heroin equivalents) increased by 9% in 2002 after having fallen by 22% in 2001. The increase was a consequence of the doubling of morphine seizures, which was a reflection of the resumption of large-scale opium poppy cultivation and processing in Afghanistan in 2002. Heroin seizures, in contrast, declined by 15% as the huge stocks, which were built up in 1999/2000, were gradually depleted. Some preliminary data for 2003, however, suggest that trafficking in opiates, including heroin, regained momentum as Afghanistan had another good opium poppy harvest. In line with the fact that the world's two largest illicit opium production areas are located in Asia, most opiates seizures also take place in Asia (65% of all opiates seizures in 2002). Europe accounts for 28% and the Americas for 6% of global seizures. Iran, followed by Pakistan, were the two countries with the largest opiate seizures worldwide in 2002. Iran alone accounted for 25% of global opiate seizures in 2002, Pakistan for 16%. Taking heroin in isolation, Central Asia accounted for about a third of all seizures made in the countries surrounding Afghanistan. The proportion of Central Asia in heroin seizures made in countries surrounding Afghanistan was twice as high in 2002 as in 2000, indicating more use of the Central Asian trafficking route. Opiate seizures rose by almost 20% in Europe in 2002 and were back to the levels reported in 2000.

Seizures of opiates (in heroin equivalents), 1980-2002

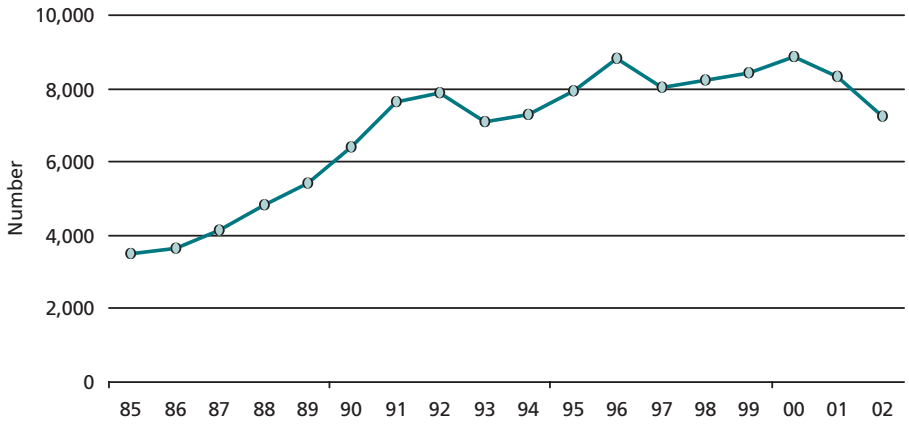


Abuse

Heroin abuse in the countries of Western Europe continued on a stable to declining trend. The number of drug related deaths, mostly related to heroin, fell by some 20% between 2000 and 2002. There are also indications that the injecting of drugs has been stable or decreasing over the last few years in most countries in Western Europe. Newly diagnosed HIV infections related to injecting drug use (IDU) have experienced a general decline since 2000. They fell in Western Europe by more than 30% between 2000 and 2002.

The Russian Federation appears to be Europe's largest heroin market: its total number of drug users is now estimated to be 3 to 4 million people, of which one third are heroin abusers. The Russian Federation also has one of the highest IDU related HIV rates in the world, and, until 2001, it was increasing rapidly. In 2002, however, newly reported cases of IDU related HIV declined strongly in the Russian Federation as well as in a number of other countries of the former Soviet Union and in Poland, leading to a significant decline in the overall number of newly diagnosed HIV cases (minus 43% in the Russian Federation and minus 36% in the countries of the former Soviet Union).

Acute drug related death in the EU-15,1985-2002

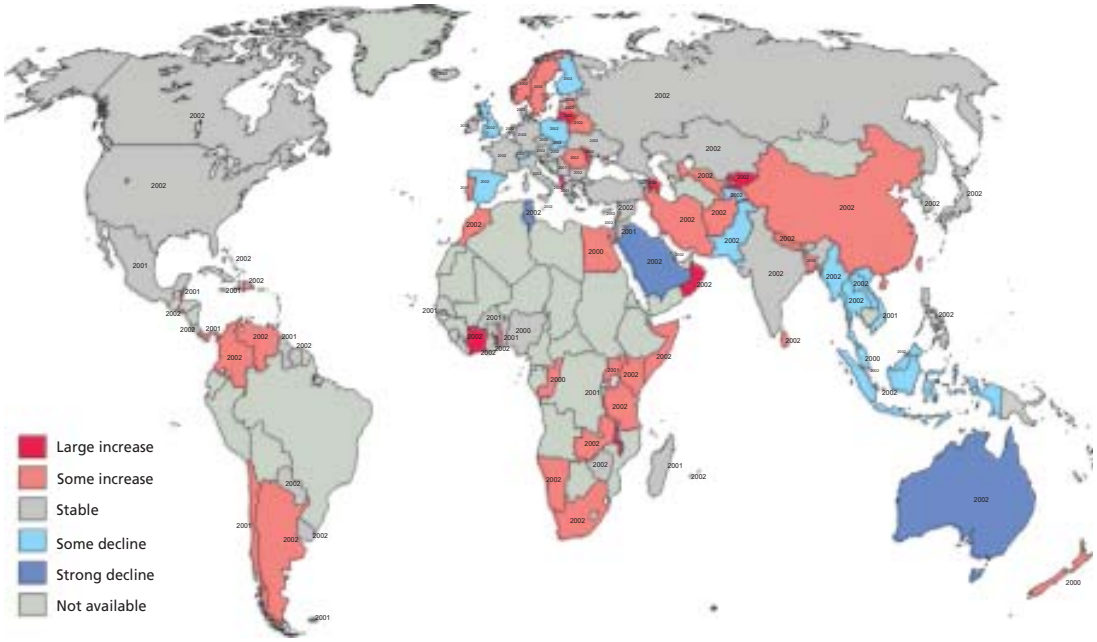


* preliminary results

Sources: EMCDDA, UNODC, Annual Reports Questionnaire and national reports.

The pattern of opiate abuse trends in Asia was mixed in 2002. Stable/declining trends were reported from most countries in East and South-East Asia, reflecting falling opium production in Myanmar and Laos. Stable or declining trends were also reported from Pakistan and some of the Central Asian countries, a delayed consequence of Afghanistan's opium poppy ban of 2001. Central Asia, which suffered for many years from the strongest growth rates of heroin abuse and IDU related HIV, saw a marked decline in the number of newly diagnosed HIV cases in 2002. In Pakistan overall heroin abuse was reported to have declined slightly in 2002. In India, overall opiate abuse was reported to have remained stable in 2002 following years of increase. Thailand shows a continuing downward trend in opiate abuse since the mid 1990s, though this runs in parallel with an increasing trend in methamphetamine use.

Changes in abuse of heroin and other opiates, 2002 (or latest year available)



Sources: UNODC Annual Reports Questionnaires Data, National Household Surveys submitted to UNODC, United States Department of State (Bureau for International Narcotics and Law Enforcement Affairs), International Narcotics Control Strategy Report, Law Enforcement Reports, SACENDU (South African Community Epidemiology Network, UNODC, Meetings of Heads of Law Enforcement Agencies (HONLEA), UNODC Opium Surveys.

In contrast to a majority of Asian countries reporting stable or declining abuse trends in 2002, opiate abuse was reported to have continued rising in China, the world's most populous country. The number of registered drug addicts rose in 2002 and in 2003 to exceed 1 million people, a 15-fold increase over the 1990-2003 period. The most significant decline of opiate abuse in recent years was reported from Oceania in 2001. It lasted well into 2002 and - according to preliminary data - into 2003 as well largely due to the 2001 shortage of heroin in Australia's domestic market.

Heroin abuse, which increased in the Americas over the last decade, finally stabilized in 2002. In the USA, general population surveys revealed a basically stable level in 2002. In contrast to the situation in North America, a number of countries in South America, the Caribbean and Central America (Argentina, Colombia, Venezuela, El Salvador, and the Dominican Republic) reported rising levels of opiate abuse in 2002, reflecting the ongoing production of opium in the region.

Coca/Cocaine Market

Production

Global coca cultivation continued declining for the fourth straight year in 2003. The total area under coca cultivation in Colombia, Peru and Bolivia combined declined to 153,800 ha, an 11% decline from 2002 and a 30% decline from the peak of coca cultivation in 1999. As has been the case since 1996, the majority of all coca cultivation (56%) took place in Colombia, 29% took place in Peru and 15% took place in Bolivia. In 2003, world potential cocaine production was 655 tons, down from 800 tons in 2002. It amounted to 155 tons in Peru, 60 tons in Bolivia and about 440 tons in Colombia, down from 580 tons in the previous year.

Global coca bush cultivation, 1990-2003 (in ha)

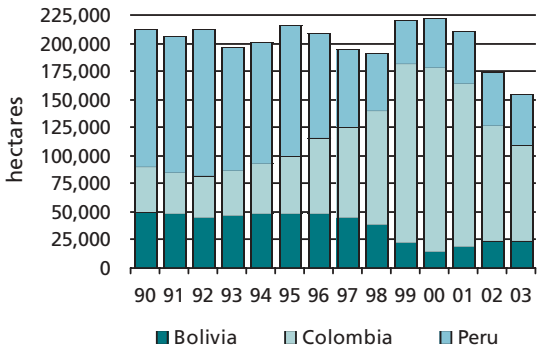
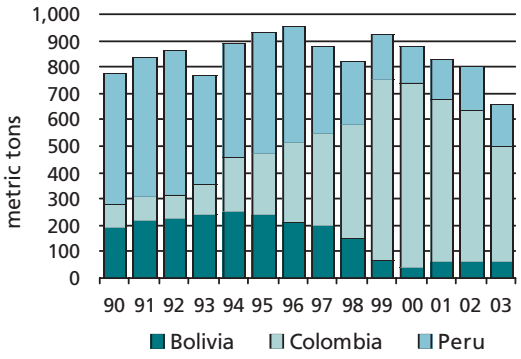


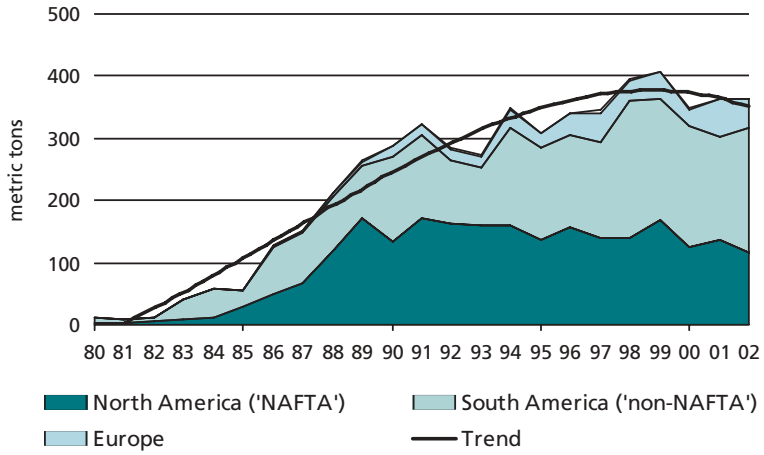
Fig. 00: Global cocaine production, 1990-2003 (metric tons)



Trafficking

Cocaine seizures remained stable in 2002, and were some 10% less than in 1999, the latest peak year of global cocaine production. After having increased dramatically in the 1980s at the time when cocaine production skyrocketed, cocaine seizures have been characterized by a stabilization / decline in recent years, reflecting the production trend. The bulk of cocaine seizures continue to take place in the Americas. In 2002, 55% of all cocaine seizures took place in South America (including Central America and the Caribbean), 32% in North America and 13% in Europe (of which 99% in Western Europe). The most striking trend in recent years has been the strong increase in European cocaine seizures, reflecting underlying shifts in trafficking. Although Europe's record seizures of 2001 were not repeated in 2002, the proportion of cocaine seizures made in Europe (13% of global seizures in 2002) was substantially higher than in 1990 (6%) or in 2000 (8%).

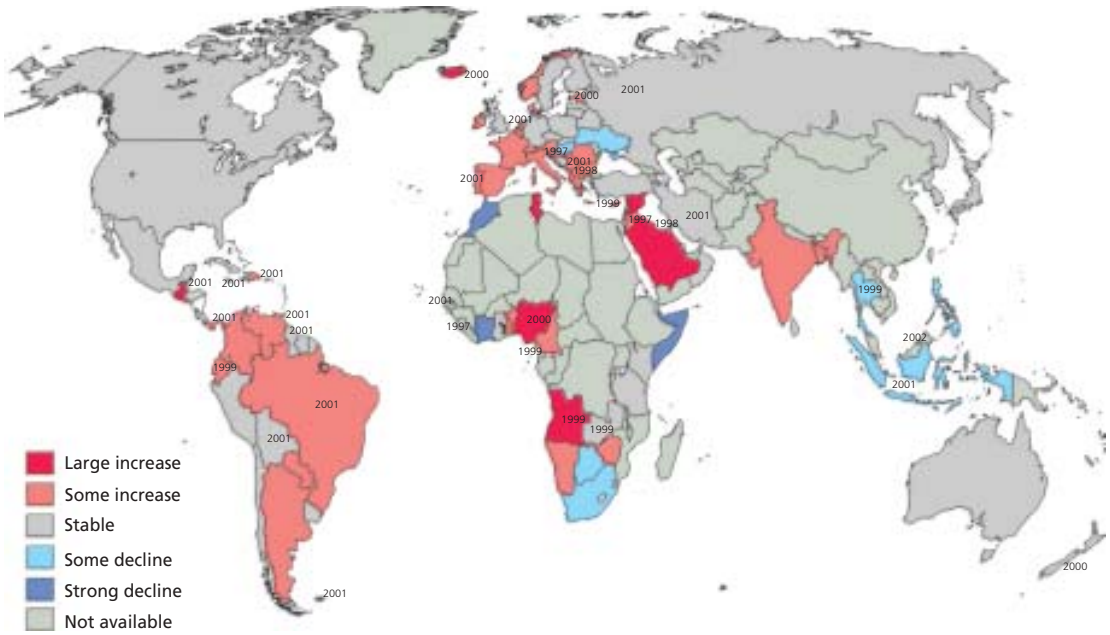
Global cocaine seizures 1980-2002



Abuse

The spread of cocaine use is losing momentum. In North America it appears to have been basically stable. The annual prevalence of cocaine use in the USA was 2.5% of the population age 12 and above in 2002. Canada also reported a stabilization of cocaine use in 2002. In Mexico cocaine use remained basically stable over the 1998-2002 period. In South America in 2002, use stabilized in Bolivia and Peru. Cocaine use continues to rise in Europe, though at a lower pace than in previous years. Crack cocaine is still concentrated in few locations in Europe, but there is a risk that, once established in local markets, it could spread across the continent. Cocaine use remains low in Asia, but increases were seen in the Near East and in South Asia.

Changes in abuse of cocaine, 2002 (or latest year available)



Sources: UNODC Annual Reports Questionnaires Data, UNODC (Regional Centre Bangkok) Epidemiology Trends in Drug Trends in Asia (Findings of the Asian Multicity Epidemiology Workgroup, December 1999, National Household Surveys submitted to UNODC, United States Department of State (Bureau for International Narcotics and Law Enforcement Affairs) International Narcotics Control Strategy Report, 1999;Bundeskriminalamt (BKA) and other Law Enforcement Reports, SACENDU (South African Community Epidemiology Network July - December 1998,UNODC and Ministerio de Educacion,Estudio Epidemiologico 1999, CEDRO, Epidemiologia de Drogas en la poblacion urbana Peruana - 1995, INCB, Annual Report for 1999.

Cannabis Market

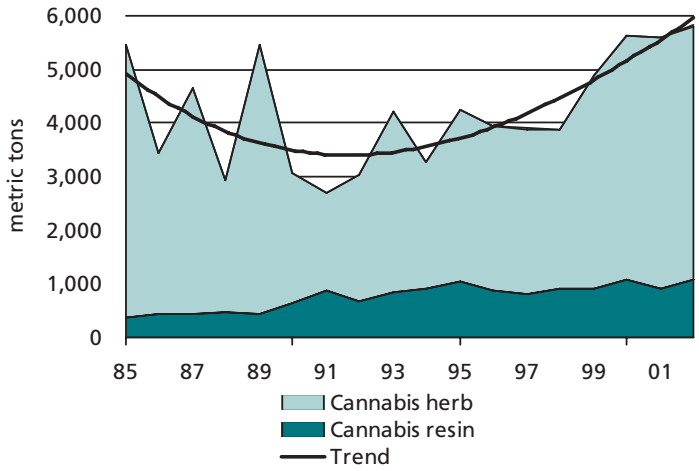
Production

Cannabis herb production has been rising and may have reached some 32,000 tons in 2002. It is globally dispersed, with 142 countries reporting cannabis plant seizures over the 1992-2002 period. North America seems to be the world's largest cannabis market, accounting for two-thirds of global cannabis herb seizures over the 2001-2002 period. US authorities report that two-thirds of cannabis herb is domestically produced. In South America, Colombia and Paraguay are among the main source countries. Cannabis production in Africa is reported from practically every country. Most countries in Europe also report domestic production of cannabis. The most frequently cited source country in Europe is Albania which supplies most countries in the Balkan region as well as Italy. The Netherlands was the second most frequently cited source country in Europe in 2002. If available estimates from various sources are combined, data show a strong decline of cannabis herb production over the 1989-1992 period, followed by an increase over the subsequent decade so that global cannabis herb production in 2002 has again reached levels similar to the late 1980s. In Western Europe, the world's largest cannabis resin market, where more than two-thirds of all cannabis resin seizures were made in 2002, about 80% of the cannabis resin is estimated to originate in Morocco. Global cannabis resin production is estimated at about 7,400 tons; of this, about 3,000 tons are produced in Morocco.

Trafficking

The two cannabis products, cannabis herb (marijuana) and cannabis resin (hashish) remain the most extensively trafficked drugs worldwide. Practically all the countries of the world are affected by cannabis trafficking. Seizures of cannabis exceed those of other drugs in almost all countries. In 2002, a total some of 5,800 tons of cannabis products were seized globally. This total includes more than 4,700 tons of cannabis herb, more than 1,000 tons of cannabis resin and more than 1 ton of cannabis oil. The volume of seized cannabis products was more than 15 times the volume of cocaine and more than 100 times the amount of heroin seized. The upward trend in cannabis seizures, which began in the early 1990s, continued in 2002. Cannabis herb seizures remained generally stable, but cannabis resin seizures increased in 2002, offsetting the decline reported the previous year. Overall cannabis seizures were almost twice as high in 2002 as a decade earlier. Over the 2001-2002 period, 55% of all cannabis seizures were reported from the Americas, 20% from Africa, 16% from Europe, 9% from Asia and less than 1% from Oceania. In 2002 cannabis seizures fell in Oceania and in Africa but increased in Asia, the Americas and in Europe.

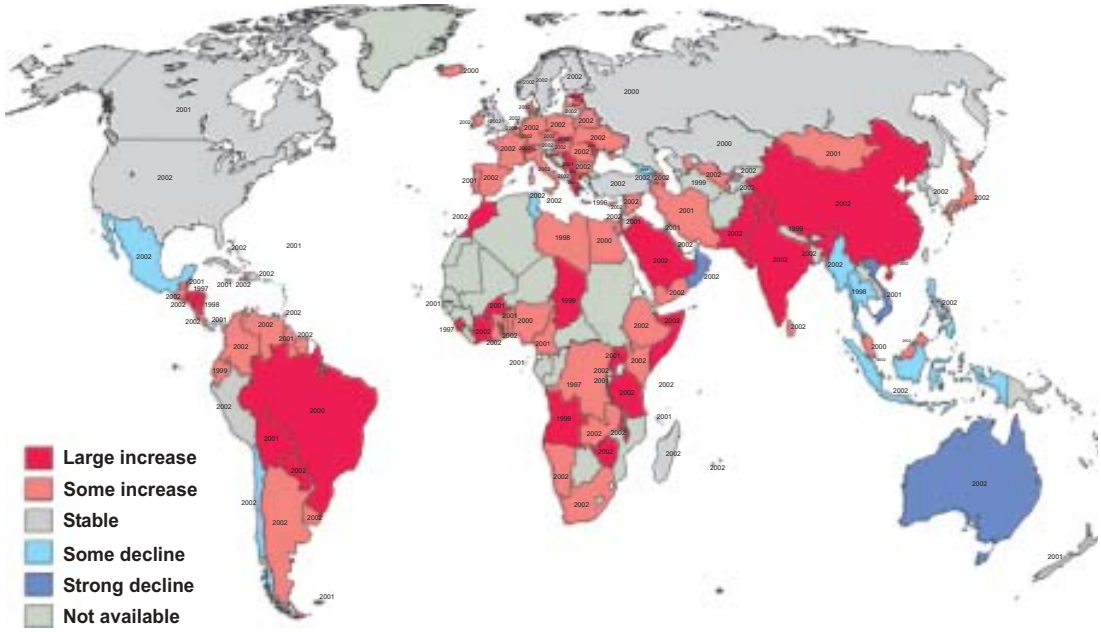
Cannabis seizures, 1985-2002



Abuse

Global cannabis consumption continued its steep rise over the 2000-2002 period. This follows a gradual increase in the early 1990s (1991-1997) and some stabilization over the 1997-2000 period. In the USA, the level of cannabis use remained largely stable in 2002 as compared to a year earlier. In Mexico, one of the largest source countries of cannabis herb, household surveys conducted in 2002 showed a decline in marijuana use, following years of increase in the 1990s. In contrast to stable trends in North America, cannabis consumption (according to national experts' perceptions reflected in UNODC's Drug Abuse Trend Index) continued rising in South America, including the Caribbean and Central America, Western and Eastern Europe, Africa and Asia (where the increase is less pronounced than in other regions).

Changes in abuse of cannabis, 2002 (or latest year available)



Source: UNODC Annual Reports Questionnaire Data and national reports.

Amphetamines-type stimulants market

Production

The global production of methamphetamine and amphetamine is estimated at around 410 tons (range 290 - 516 tons) and ecstasy production is estimated at 113 tons (range 50 - 200 tons) in 2002. Annual production of ATS is thus larger than heroin but smaller than cocaine. The main producers of methamphetamine are in South-East Asia (including Myanmar, China and the Philippines) and North America (USA and Mexico). The main producers of amphetamine and ecstasy are in Europe and include the Netherlands (apparently the largest producer), Belgium, Poland, the Baltic states, the UK and Germany.

Production of ATS, which has increased globally over the last decade, is dominated by methamphetamine, followed by ecstasy and amphetamine. About 11,900 clandestine laboratories were dismantled in 2002. More than 80% of them produced ATS. This proportion was less than 20% in the early 1990s. Most ATS laboratories that were dismantled produced methamphetamine (about 95% in 2001 and 2002).

A record number of methamphetamine laboratories and methamphetamine precursor chemicals were seized in 2002, most of them in North America. The USA undertook 97% of all reported methamphetamine laboratory seizures in

2002. The largest number of laboratories dismantled in East and South-East Asia were reported from China (13), Myanmar (4) and the Philippines (4) in 2002.

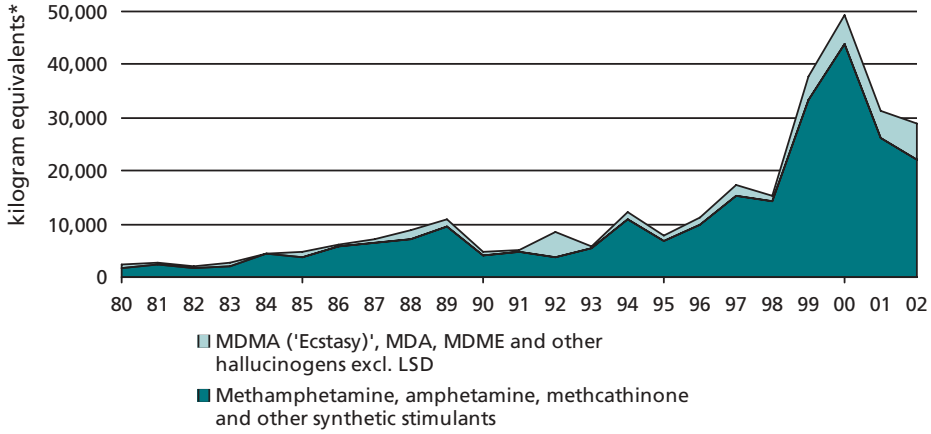
The number of detected amphetamine laboratories has increased again in recent years after falling in the 1990s. Most amphetamine laboratories were dismantled in Europe. A shift of production from Western Europe towards Eastern Europe has been noticed since the mid 1990s.

The number of dismantled clandestine ecstasy laboratories rose almost 3-fold over 1992-2002 period. Most ecstasy laboratories are still dismantled in Europe, but production is rising in Asia. While the number of dismantled ecstasy laboratories declined in Europe, and remained more or less stable in North America, it increased strongly in Asia.

Trafficking

In 2001 and 2002 ATS seizures declined, mainly due to a fall of methamphetamine seizures in China. The decline in 2002 amounted to 7% as compared to a year earlier. Over the 1992-2002 period China reported the highest ATS seizures, followed by Thailand, the USA, the UK and the Netherlands. In 2001 and 2002, the highest ATS seizures worldwide were reported from Thailand, followed by China. The increase of ATS seizures over the last decade was significantly higher than that of heroin or cocaine, despite the fall in 2001 and 2002 described above. Over the 2001/2002 period, more than 60% of global ATS seizures were methamphetamine and close to 20% were ecstasy seizures.

Seizures of amphetamine-type stimulants 1980-2002



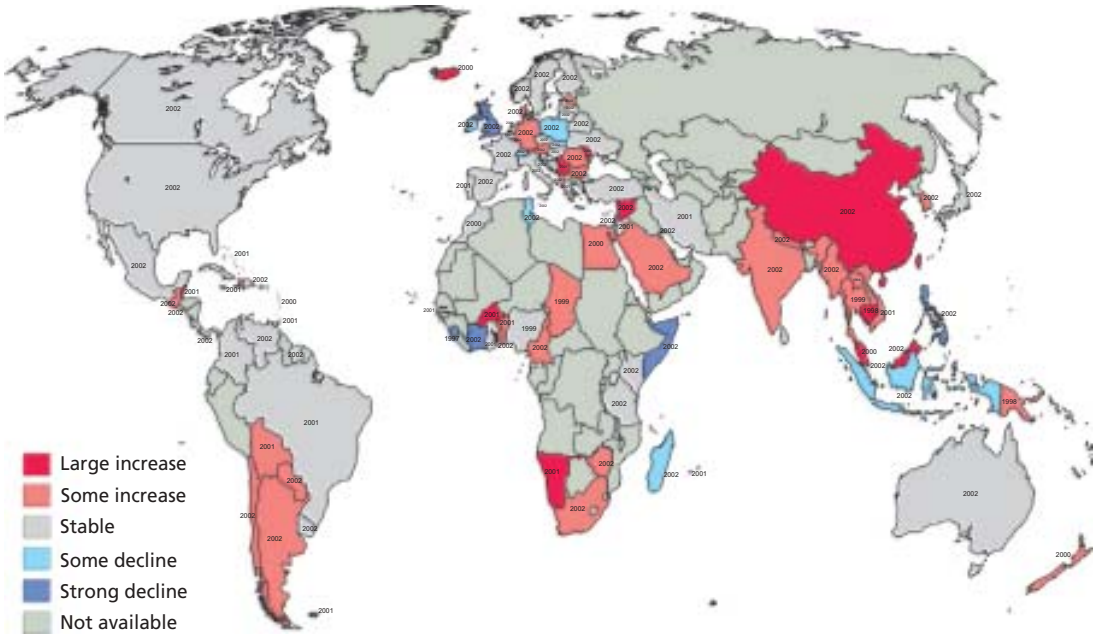
* Seizures reported in kilograms and in units; a unit ('pill') of ecstasy was assumed to contain on average 100 mg of MDMA; a 'unit' of amphetamine / methamphetamine was assumed to contain 30 mg of mphetamine / methamphetamine.

Abuse

Use of ATS is rising, but the increase in 2002 was less significant than a year earlier. While large increases in the use of methamphetamine were reported from China and Singapore in 2002. A number of other countries in East and South-East Asia reported some stabilization/decline in consumption levels of amphetamine/methamphetamine. Some of the strongest increases in recent years occured in Thailand where the proportion of people admitted to treatment for methamphetamine abuse rose from 2.1% in 1995 to 50.5% in 2001. In 2003, however, a crackdown on the market appears to have led to a fall in methamphetamine abuse.

There has been a stabilization of amphetamines use in the Oceania region and in North America. Following massive increases in the consumption of amphetamines (mainly amphetamine) in the 1990s, the overall trend for Western Europe as a whole was basically stable over the 2000-2002 period. Also, following years of increases, countries of Eastern Europe reported - for the first time - largely stable levels of amphetamine consumption in 2002.

Changes in consumption of amphetamines, 2002 (or latest year available)



Sources: UNODC Annual Reports Questionnaires Data, UNODC (Regional Centre Bangkok) Epidemiology Trends in Drug Trends in Asia (Findings of the Asian Multicity Epidemiology Workgroup, National Household Surveys submitted to UNODC, United States Department of State (Bureau for International Narcotics and Law Enforcement Affairs) International Narcotics Control Strategy Report;Bundeskriminalamt (BKA) and other Law Enforcement Reports.

Global ecstasy consumption has increased consistently over the last decade and it appears to have continued rising in 2002, though at a significantly slower pace than in 2001. The ongoing popularity and consequent spread of ecstasy use in many developing countries continued. In several of the largest ecstasy markets of Europe and North America, where massive increases were experienced in the 1990s, consumption stabilized or showed signs decline.

1. THE WORLD DRUG PROBLEM: A STATUS REPORT

1.1. The policy landscape

The multilateral drug control system is a very valuable piece of political capital, agreed upon through an incremental process spanning a century. Its legal framework is provided by the three international drug conventions[a]. Adherence to the conventions is almost universal, and most States Members of the United Nations have ratified them. The scope of control over drugs has broadened and deepened over the years, from the regulation of licit production and trade to the goal of international cooperation against the multi-faceted problem of illicit drugs.

As we approach the second century of international drug control, it is useful to look back in order to see more clearly forward. The central principle of the drug control system was, and still is, to limit the use of those psychoactive substances that are under international control to medical and scientific purposes. Nicotine, however, was never put under the control regime, even though it is a strongly psychoactive and addictive substance, and claims so many lives. Since the market for this 'licit' drug is relatively un-regulated, it offers an instructive comparison with markets for the more carefully controlled 'illicit' drugs (such as cannabis, cocaine, heroin and the ATS). A good indicator for comparison is the annual prevalence of drug (licit and illicit) use. One fifth of the world population, 1.3 billion people, uses tobacco. Only 3% of the world population, which is less than 0.2 billion people, uses illicit drugs. Tobacco consumption is thus seven-fold more than illicit drug use. Comparisons of mortality are even more telling. The World Health Organization estimates that some 200,000 people died from drug abuse in the year 2000, equivalent to 0.4% of all deaths worldwide. Tobacco, however, claimed 25 times as many lives (4.9 million), equivalent to 8.8% of all deaths. If the measure of disability-adjusted life years (DALYs) is used, then drug abuse would have caused the loss of 11.2 million years of healthy life, but tobacco would have caused the loss of five times as many years of healthy life (59.1 million). These are dramatic illustrations of the efficacy of the multilateral drug control system. The number of illicit drug users would doubtless have been larger if illicit drugs were sold as freely as the licit ones.

Yet there can also be no doubt that the second half of the 20th century has witnessed an epidemic of illicit drug use. Though neither the numbers, nor the consequent label of an 'epidemic' can be very precise, it is quite clear that illicit drug use has increased very rapidly since the middle of the 20th century. The evolution of psychoactive substance use over time can be traced and

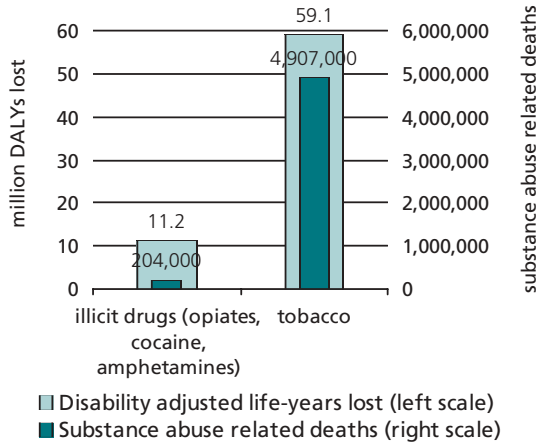
Table 1: Extent of tobacco and illicit drug consumption, 2001-2003 (or latest year available)

	Tobacco	Illicit drugs
GLOBAL (million people)	1,270	185
In % of global population	20%	3%
In % of global population age 15 and above	29%	4.2%

Sources: for illicit drugs: UNODC, Annual Reports Questionnaire data, various Govt. reports, reports of regional bodies, UNODC estimates; estimates for tobacco were calculated from individual country data published by the World Health Organisation.

a) The Single Convention on Narcotic Drugs of 1961 (United Nations, *Treaty Series*, vol. 520, No.7515), the Convention on Psychotropic Substances of 1971 (*Ibid.*, vol. 1019, No.14956) and the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (*Ibid.*, vol.1582, No.27627).

Fig. 1: Substance abuse related deaths and disability adjusted life-years (DALYs) lost due to substance abuse at the global level



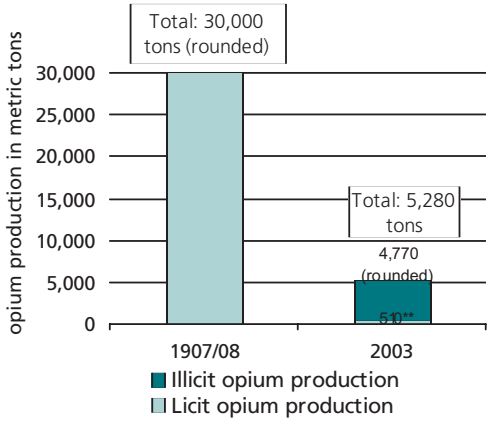
Source: WHO, World Health Report, 2002

described by historical and anthropological enquiry. This yields fertile results, but is unlikely to be able to answer questions - so salient in the contemporary world - about whether the drug problem is getting better, or worse, and about whether drug production and consumption are decreasing, or increasing. Long-term enquiry is further impeded by the fact, noted above, that drugs became separated into legal and illegal ones no more than a century ago.

Measuring the size of the illicit drug problem today, in terms of how many drugs are produced, trafficked and consumed, is not easy but can be done. Given the illicit nature of the activity, it may not be a perfectly accurate estimate, but the current state of knowledge is certainly sufficient to provide a reasonable orders of magnitude, as the following chapters of this report demonstrate. Deriving a long-term trend from such an estimate, however, requires a comparable estimate for a certain period, or moment in time, in the past. Even in the best of circumstances, this is difficult. The systematic recording of economic, social and demographic statistics has followed industrialization, and seldom preceded it. It is thus nowhere more than about three centuries old. The creation of the United Nations and the unfolding of its development agenda in the second half of the 20th century obviously created huge improvements, particularly in establishing globally aggregated economic and demographic statistics. Establishing trends for illicit drug production and consumption is quite another matter, and has to rely on qualitative assessment derived from historical and anthropological study. Quantitative trend analysis in this area is thus limited by the availability of historical data, and that usually goes back no more than three or four decades.

One of the reasons why an international drug control system emerged in the 20th century was the opium problem in China. Long a problem in the country, at least from the 17th century onwards, opium use assumed epidemic proportions in the latter half of the 19th century. Because international drug control began with a conference, at Shanghai in 1909, to consider China's opium epidemic, a good deal more is known about it than about previous epidemics or problems of psychoactive substance abuse. Even though the numbers are uncertain, it is the first case in which some quantitative assessments of drug production and consumption are possible. For all the caveats, the numbers seem to indicate that a hundred years ago, China had nearly double the number of opium users (25 million[b]) as there are in the world today (15 million, see below). There was also, depending on the measure used, three

Fig. 2: Opium production in 1907/1908* and 2003 (excl. poppy straw)



* Licit opium production in 1907/08: China: 22,200 tons, India 5,100 tons, Indochina 1200 tons, Persia 600 tons, Turkey 560 tons;
** Official forecast of licit production for 2003 by INCB; in 2002 licit production amounted to 820 tons.

Sources: International Opium Commission, Shanghai 1909, INCB, *2003 Narcotic Drugs*, New York 2004, UNODC/ICMP narcotic survey reports 2003/2004.

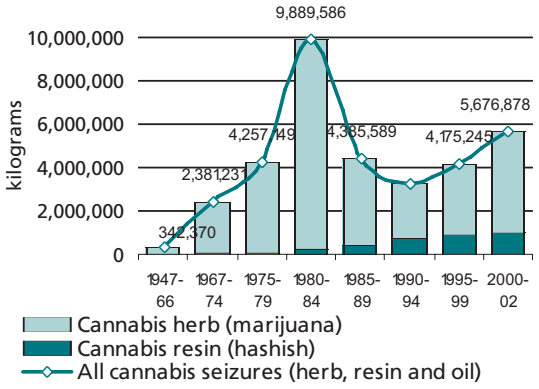
b) International Opium Commission, Shanghai, China, 1-26 February, 1909; Vol. 1, *Report of the Proceedings*, p.68.

to six times as much opium produced in the world a century ago[c].

While the opium epidemic of China can be used as a marker, it cannot constitute a baseline against which a subsequent world trend can be measured. All that can be said of the first half of the 20th century, therefore, is that after the Shanghai Conference, there were greater efforts to limit the use of some psychoactive drugs (botanical and synthetic) to medical purposes. In the second half of the century, clearer quantitative assessments become possible. In the 1950s, China solved its opium problem. In the same decade, Japan saw a huge increase in the abuse of methamphetamine, and brought it under control. An upsurge in drug abuse in many parts of the world, however, began to be perceived in the 1960s. Whether this was actually an upsurge or merely new awareness of an older phenomenon is difficult to establish. The upsurge was recorded in North America, then in Europe, and began to spread to developing countries along the main drug trafficking routes. In the United States of America (USA), the peak in drug use was reached in the late 1970s for cannabis and in the mid-1980s for cocaine (according to national household survey data). Drug use then fell until the early 1990s, rose again slightly in subsequent years, but appears to have been basically stable since the late 1990s. In the majority of other countries, by contrast, drug consumption continued rising. This has been the case in many parts of Asia, Africa, South America and Eastern Europe. In most of Western Europe drug use increased as well. Heroin use stabilised in the 1990s and this trend seems to have continued into the first years of the new millennium.

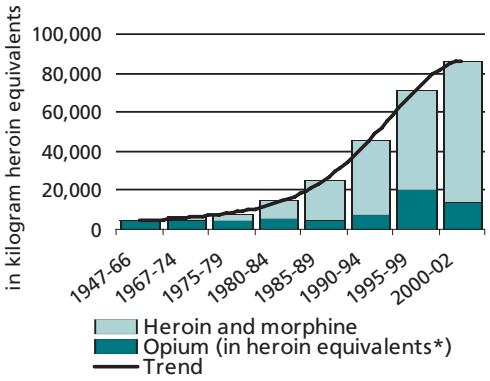
Though there is no long-term time-series data on drug abuse at the global level, a number of indirect indicators such as treatment for drug abuse, drug-related mortality, drug consumption/possession related arrests and drug seizures suggest that more drugs are now being consumed than a few decades ago. The most readily available indicator at the global level is seizure data. Drug seizure data has been collected at the international level since the times of the League of Nations and correlates positively -when considering longer-term trends - with drug production and drug consumption. This data shows increases over the last few decades, reflecting not only improved enforcement efforts or better reporting, but also rising drug problems in many countries of the world. In 2000-2002, average annual seizures of cannabis were 17 times higher than average annual seizures over the 1947-66 period[d]; seizures of opiates (opium, morphine, heroin) were 19 times higher; and cocaine seizures were as much as 8,700 times higher. There are no comparable figures for amphetamine-type stimulants (ATS), which were still legal in most coun-

Fig. 3: Average annual cannabis seizures (herb, resin and oil)



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Fig. 4: Average annual seizures of opiates in heroin equivalents*



*using a transformation ratio of 10 kg opium equivalent to 1 kg of heroin and 1 kg of morphine equivalent to 1 kg of heroin

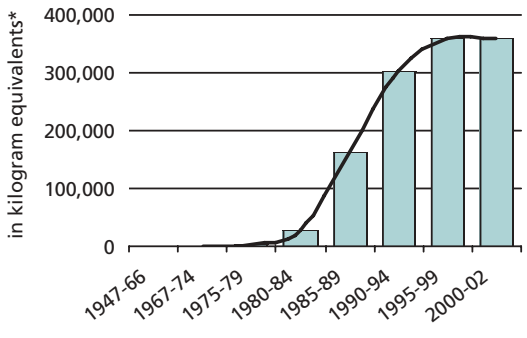
Source: UNODC, Annual Reports Questionnaire Data / DELTA.

c) The figure above does not account for most of the medical morphine produced in the world today, since that is extracted directly from the opium poppy plant by an industrial process (the "poppy straw method"). About 305 tons of licit medical morphine was produced in 2001/2002 (INCB, Narcotic Drugs 2002, New York, 2003). If this is converted back to opium, using an average conversion ratio of 1:10, we get 3050 tons of opium equivalent. Adding this to the opium estimate for 2002, we have a total of 8,360 tons, which is still nearly three times smaller than the 30,000 tons estimated for 1907/1908.

d) The sharp decline in cannabis seizures from the peak in the early 1980s was the result of eradication in South America and slowing demand in the USA.

tries in the 1950s and 1960s. This changed with the 1971 Convention on Psychotropic Substances. If current seizures are compared with average annual seizures over the 1967-74 period, ATS seizures (excluding ecstasy) grew 128 times.

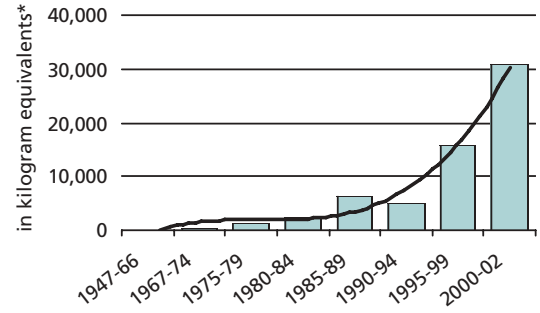
Fig. 5: Average annual cocaine seizures



* using a transformation ratio of 1 litre equivalent to 1 kg.

Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Fig. 6: Average annual ATS seizures (excl. ecstasy)



* using a transformation ratio of 1 dose being equivalent to 30 mg of methamphetamine or amphetamine.

Source: UNODC, Annual Reports Questionnaire Data / DELTA.

The total number of drug users in the world today is clearly more than it was two or three decades ago (current estimates are detailed below). More countries are affected by drug abuse, particularly those in which drugs are produced, or through which the drugs transit. This trend has been exacerbated by the fact that the traditional plant-based drugs have been increasingly supplemented by synthetic drugs, thus providing a broader choice for consumers. Synthetic drugs have also reversed the traditional trafficking pattern of plant-based drugs, which went from developing countries to developed ones. The trend towards "globalization" facilitates cross-country trafficking, and "modernization" has diluted many traditional systems of regulating drug use. There are huge and evolving literatures on the subjects of modernization and globalization, and they are not detailed here. What is important to note, in the present context, is that the rapidity of social and economic change is double-edged, because it creates opportunities for rapid increases in drug abuse and the criminal activity that supplies illicit drug markets. This is not a new phenomenon. There is a dark side of technological progress, which has often created conditions for drug abuse to spread. The most well known examples are the gin epidemics of the 18th century after the discovery of the distillation process; the on-going tobacco epidemic after the mechanization of cigarette production and the invention of the safety match in the 19th century; and the morphine/heroin epidemics of the late 19th century after advances in chemistry made it possible to extract or refine the pure drugs from opium, and the invention of the hypodermic syringe made it possible to inject the pure drug directly into the bloodstream.

One further example, because of its great contemporary relevance, may better illustrate the problem. Urbanization is often used as an indicator for modernization and development. It is also closely associated with drug abuse. This is not to say that drug abuse is an exclusively urban phenomenon, because it is not. The rural incidence, however, seems either to be associated with developed regions of the world, or with traditional patterns of consumption (such as coca-chewing or opium-smoking) in less developed regions. It would thus seem reasonable to argue that rapid rates of urbanization create conditions in which drug abuse may spread more rapidly. In the second half of the 20th century, the drug abuse epidemic being discussed here has unfolded in parallel with a dramatic growth of urbanization. According to the latest United Nations estimates[e], about 3 billion people, or 48% of humanity, now live in urban settlements. This proportion was only 29% in 1950. In 2007, the urban population is projected to surpass the 50% mark. For the first time in human history, there will be more urban than rural dwellers. Between 2000 and 2030, the world's urban population will grow at

e) United Nations, *World Urbanization Prospects: The 2003 Revision, Data Tables and Highlights* (ESA/P/WP.190, New York, 2004).

double the average annual rate of the total world population. At this rate of growth, the world's urban population will double in 38 years, or in about half the average lifetime of a person. Arresting the growth of drug abuse, therefore, will be that much harder to achieve.

In these kinds of enabling conditions, some of which were noted above, it is remarkable that the diffusion of the drug epidemic to the general population has been contained. Less than 5% of the youth and adult population - the annual prevalence rate of drug use today - is certainly evidence of containment, particularly when compared with the annual prevalence rate of some 30% for tobacco. There are, however, three important caveats. First, there is no clear baseline, as explained above, with which to compare this 5% diffusion. Secondly, though the large majority of the population (95%) remains untouched by illicit drug use, some very susceptible segments of that population, particularly youth, have been seriously affected by it. Thirdly, while it can be argued that a diffusion of the epidemic in the general population has been contained, it cannot be argued that the epidemic has been stopped, or eradicated. The overarching objective of the drug control conventions - restricting the use of psychoactive substances under international control to medical and scientific use - has not yet been achieved.

The overwhelming majority of countries and their governments, however, remain convinced that this is still a reachable goal. So, also, does public opinion in the vast majority of countries. Current levels of illicit drug use, together with the health consequences and criminal activities associated with it, have consistently been deemed unacceptable by both policy makers and public opinion. This is why the multilateral drug control system still enjoys almost universal adherence. The very fact of such an intensive and extensive level of consensus provides a crucial sense of perspective for evaluating the paradoxical actions of a small number of very vocal actors to break ranks and challenge the spirit of multilateralism.

The majority of governments, precisely because they still regard the drug conventions as relevant, have made continuous efforts to achieve better results in bringing the drug problem under control. It was in recognition of this equality - in suffering the consequences of drug abuse and in accepting responsibility for combating it - that the international community came together, ten years after the signing of the 1988 Convention, to re-examine the global drug problem. The twentieth General Assembly Special Session on Drugs (UNGASS) devoted to 'Countering the World Drug Problem Together' that took place in New York from 8-10 June 1998 was called, in the Secretary General's words, to deal with the 'tragic reality' of the proliferation of drugs over the previous thirty years, 'an example of the previously unimaginable becoming reality very quickly'.

The Political Declaration adopted at UNGASS committed signatories to intensifying their efforts to resolve the drug problem with full respect for human rights and sovereignty and in a spirit of trust and cooperation. States agreed to establish the year 2003 as a target date for the introduction of new or enhanced demand reduction strategies and programmes in collaboration with public health, social welfare and law enforcement authorities and to achieve significant, measurable results by the year 2008. Within the same time frame, they agreed to develop strategies to eliminate or significantly reduce the illicit cultivation of the coca bush, the cannabis plant and the opium poppy.

Other key documents adopted at the Special Session include the Declaration on the Guiding Principles of Drug Demand Reduction and Measures to Enhance International Cooperation to Counter the World Drug Problem, the latter being subdivided into five areas for particular attention: the illicit manufacture of amphetamine-type stimulants (ATS) and their precursors; the control of precursors; judicial cooperation; money laundering, and international cooperation to eradicate illicit cultivation and to promote alternative development.

The innovative shifts in policy emphasis that resulted from UNGASS can be summarized as follows:

- A parity of approach between demand and supply policies;
- The setting of fixed goals and target dates for each sector of drug control;
- The focus on improving and standardizing methodologies for the collection and analysis of drug-related data;
- The cross-disciplinary and 'holistic' approach to the drug problem; and
- A greater burden sharing of drug control efforts by means of multilateral partnerships a) with the private sector and b) with other agencies in the UN system.

In many respects, policy developments at regional and national levels have taken their cue from the UNGASS call to action, particularly with regard to developing instruments for estimating the incidence, prevalence and consequences of illicit drug use and for interpreting

production, trafficking and seizure patterns; determined efforts are underway to make more accurate estimates of the costs to society of drug abuse. Thanks to UNGASS, the capacity to evaluate drug policies and programmes is gradually being incorporated into all national drug strategies.

A mid-term review of progress towards meeting the goals set at UNGASS was conducted last year. Over 70 government ministers and representatives from 124 countries participated in the Ministerial Segment of the 46th session of the Commission on Narcotic Drugs held in Vienna on 16 and 17 April 2003. The results, not presented here but detailed in reports to the Commission[f], showed encouraging progress, but noted that the UNGASS goals were still distant[g]. The Ministerial segment concluded with a Joint Ministerial Statement and further measures to implement the action plans emanating from UNGASS[h]. Ministers reaffirmed their commitment to the outcome of UNGASS and to the principle that action against the world drug problem was a common and shared responsibility requiring an integrated and balanced approach. It was recognized that progress in meeting the goals set had been considerable but uneven, although the increased efforts and achievements of many States had shown positive results. Government representatives reaffirmed that international cooperation and the mainstreaming of drug control efforts were indispensable in attaining the universal aspirations of international peace and security, economic and social progress, a better quality of life and improved health in a world free of illicit drugs.

1.2 THE DYNAMICS OF WORLD DRUG MARKETS

1.2.1 What is the current level of drug use in the world?

The total number of drug users in the world is now estimated at some 185 million people, equivalent to 3% of the global population, or 4.7% of the population aged 15 to 64. The new estimates confirm that cannabis is the most widely used substance (close to 150 million people), followed by the ATS (about 30 million people for the amphetamines, primarily methamphetamine and amphetamine, and 8 million for ecstasy). Slightly more than 13 million people use cocaine, and 15 million use opiates (heroin, morphine, opium, synthetic opiates), including some 9 million who take heroin.

These estimates are based on data for the period 2001-2003, or the latest year available. Overall, the new estimates are slightly higher than those reported in the previous World Drug Report (2000), which reflected the drug use situation in the late 1990s. Changes in the two sets of estimates must be interpreted with caution, however, because they not only reflect actual changes in the number of drug users but, to an unknown and probably large extent, changes in data collection and reporting methods as well. With these caveats in mind, a simple comparison of the two sets of estimates shows a strong increase for ecstasy and amphetamines, and a

Table 2: Extent of drug use (annual prevalence*) estimates 2001-2003

	All illicit drugs	Cannabis	Amphetamine-type stimulants		Cocaine	Opiates	of which heroin
			Amphetamines	Ecstasy			
(million people)	**185**	**146.2**	**29.6**	**8.3**	**13.3**	**15.2**	**9.2**
in % of global population	3.0%	2.3%	0.5%	0.1%	0.2%	0.2%	0.2%
in % of global population age 15-64	4.7%	3.7%	0.7%	0.2%	0.3%	0.4%	0.2%

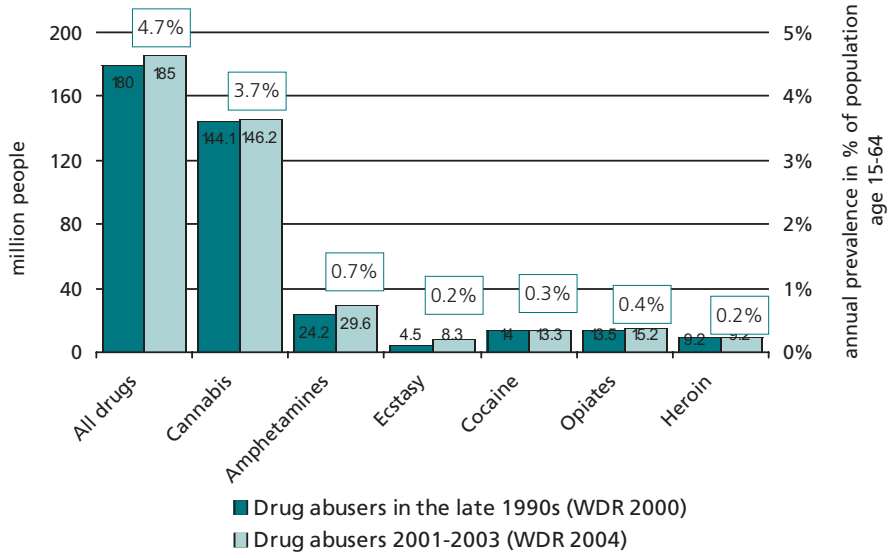
* Annual prevalence is a measure of the number/percentage of people who have consumed an illicit drug at least once in the 12 month-period preceding the assessment.

f) Second biennial report on the implementation of the outcome of the twentieth special session of the General Assembly, devoted to countering the world drug problem together. Report of the Executive Director. E/CN.7/2003/2, Vienna, 17 February 2003.

g) Encouraging progress towards still distant goals. Progress report by the Executive Director to the Mid-term Review of UNGASS. UNODC/ED/2, Vienna, 8 April 2003.

h) Joint Ministerial Statement and further measures to implement the action plans emanating from the twentieth special session of the General Assembly. E/2003/28/Rev.1. E/CN.7/2003/19/Rev.1.

Fig. 7: Estimates of annual prevalence of drug use at the global level in the late 1990s and in 2001-2003



Sources: UNODC, Annual Reports Questionnaire data, National Reports, UNODC estimates.

more moderate one for cannabis (which probably under-estimates the actual trend), as well as for opiates (mainly reflecting higher estimates for the use of synthetic opiates in some countries). Estimates of heroin use remain largely unchanged, as increases in Central Asia and Eastern Europe were offset by strong declines in Australia and more moderate ones in some Asian countries. The number of cocaine users is now marginally lower than it was in 2000. The difference, however, does not necessarily reflect a real trend as cocaine use continued to rise in several countries of Latin America and Europe, while remaining stable in others over the last few years.

The impact on health…

One way of assessing the negative health impact of illicit drug use is to utilize the notion of 'problem drugs'. Though there are different definitions of 'problem drugs'[i], they all seem to be based on the criterion of treatment demand for addiction. The definition of a 'problem drug' used in the present report is the extent to which abuse leads to treatment demand for a particular drug. The term, therefore, does not necessarily relate to the size of the population consuming it. Cannabis, for example, is the most consumed illicit drug worldwide; it is not, however, the main problem drug for which people seek treatment.

…is most serious for the opiates, particularly in Asia and Europe, but there is significant treatment demand for methamphetamine in East and South-East Asia, cocaine in the Americas and cannabis in Africa

Based on that definition, opiates are the most serious problem drug in the world, as they are responsible for most treatment demand: 67% in Asia, 61% in Europe and 47% in Oceania. In much of South East Asia, however, methamphetamine emerged as the main problem drug over the last decade. In the Americas, cocaine is still the main problem drug, accounting for 60% of treatment demand in South America and around 29% in North America[j]. In the USA, however, the number of people admitted to treatment institutions for heroin abuse has begun to exceed the number of people admitted for cocaine abuse in recent years (1999 to 2002). In Africa, cannabis consistently comes first, accounting for 65% of treatment demand.

i) For instance, the EMCDDA defines problem drug use as 'injecting drug use or long duration/regular use of opiates, cocaine and/or amphetamines', and excludes ecstasy and cannabis users; 2001 Annual report on the state of the drugs problem in the European Union, p.11.

j) The regional averages were calculated as a simple unweighted average of the proportions reported from individual countries.

Poly-drug abuse is rising

Most of the data presented here covers the 1998-2002 period. Compared to previous calculations, covering the 1995-97 period, and presented in Global Illicit Drug Trends 2003, there has been a general decline in the importance of opiates in Europe and in Asia. In the Americas, the relative importance of cocaine has declined. In general, poly-drug abuse seems to be increasing.

1.2.2. How is the drug problem evolving?

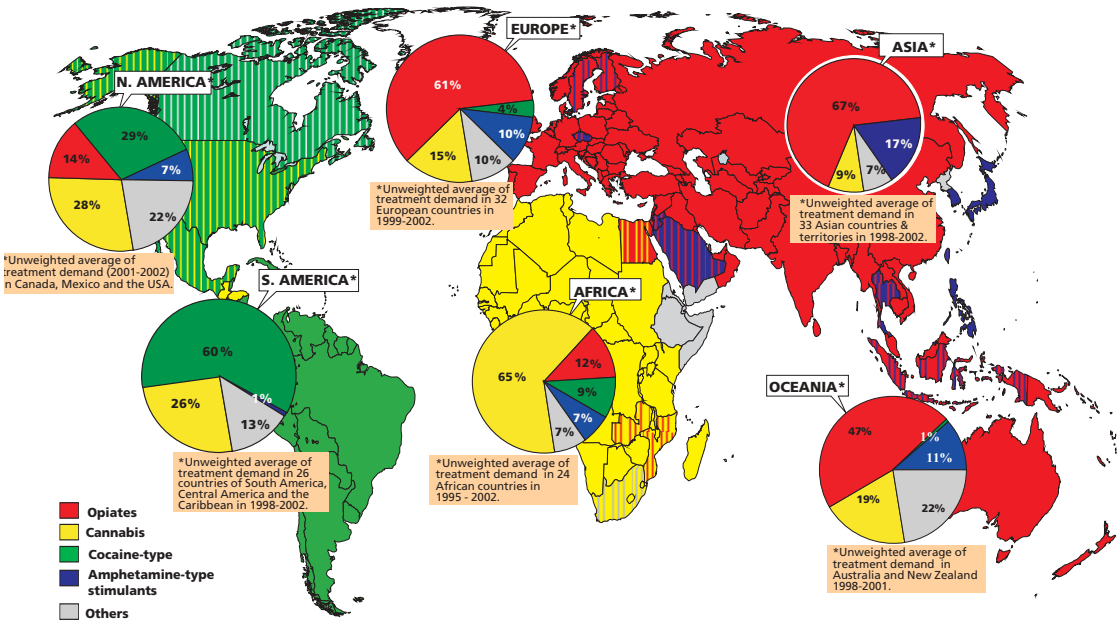
Difficulties of measurement

Is global drug abuse increasing? Is the problem getting better or worse? How is it changing? Epidemiological surveys would be the most appropriate tools for answering such questions. Unfortunately, relatively few countries have effective drug abuse monitoring systems. Data on drug use prevalence is therefore not comprehensive and robust enough to establish the type of global time-series required to document answers to such questions. Other indicators, however, can help to shed some light on the evolution of the problem.

National experts' perceptions

Governments report annually on trends in drug abuse among the general population. The information is provided for each of the main drug types on a five-point scale (large increase, some increase, no great change, some decrease, large decrease). For the majority of countries, where abuse-monitoring systems are lacking, the responses are primarily the perceptions of national drug control agencies about the evolution of the drug problem. Results must thus be treated with some caution. Despite these caveats, such reports provide valuable insights into the growth patterns of drug abuse. At the global level, they represent the most comprehensive data set of expert opinion on the evolution of drug abuse, provided in a consistent manner over more than a decade[k].

Map 1: Main problem drugs (as reflected in treatment demand), 1998-2002 (or latest year available)



Source: UNODC, Annual Reports Questionnaire Data/DELTA and National Government Reports.

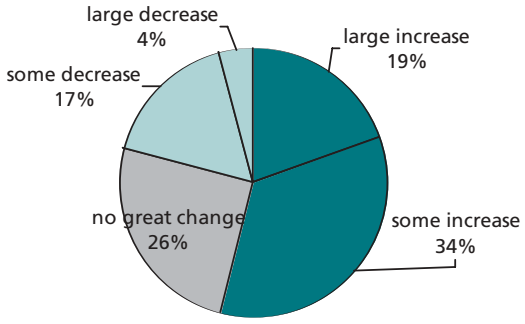
k) The analysis on drug abuse trends for the year 2002 is based on the replies of 95 countries and territories. Over the last decade, 151 countries and territories reported drug abuse trends to UNODC, which underlines the fact that drug abuse is a truly global phenomenon.

The spread of drug abuse may be losing momentum…

As a whole, drug abuse continues to spread at the global level, but the trend may be loosing momentum. There is, however, a notable exception. The consumption of cannabis herb, the most commonly used illicit drug in the world, appears to be spreading at an accelerated pace. During the last decade, the highest increases, after cannabis, were for the ATS (mainly ecstasy), followed by cocaine and the opiates.

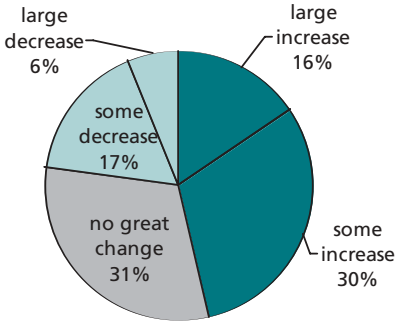
Throughout the last decade, more countries reported increases than decreases in drug abuse, indicating that drug consumption continues to spread in geographical terms. This does not necessarily mean that the total number of drug users is rising, because increases in smaller countries could be offset by declines in a few larger countries. The spread of drug abuse, however, appears to be losing momentum. In 2000, 53% of all drug abuse trends reported by governments showed an increase; this proportion fell to 46% in 2001 and 45% in 2002. In parallel, the percentage of reports indicating declining levels of abuse was on the rise: from 21% in 2000, to 23% in 2001 and to 26% in 2002.

Fig. 8: Global drug abuse trends in 2000
(based on information from 96 countries)



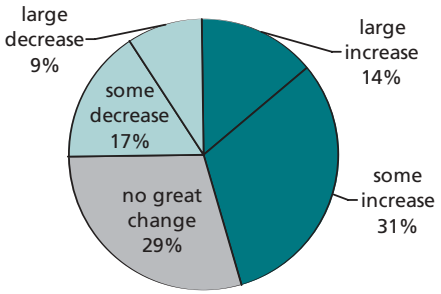
Source: UNODC, Annual Reports Questionnaire Data.

Fig. 9: Global drug abuse trends in 2001
(based on information from 96 countries)



Source: UNODC, Annual Reports Questionnaire Data.

Fig. 10: Global drug abuse trends in 2002
(based on information from 95 countries)



Source: UNODC, Annual Reports Questionnaire Data.

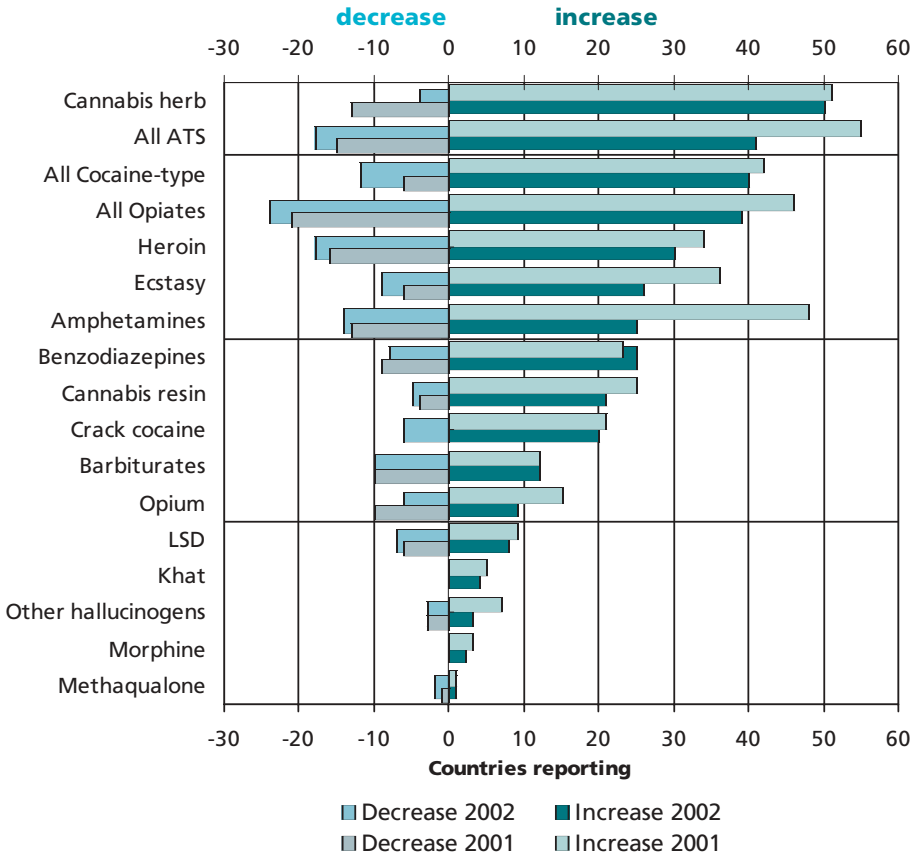
The spread of drug abuse in 2002, as in previous years, was accounted for primarily by cannabis, followed by ATS, cocaine and opiates and, to a lesser extent, benzodiazepines. Only 4% of the responding governments perceived a decline in cannabis herb consumption in 2002, against more than 50% perceiving an increase. Four out of ten countries reported an increase in the use of ATS (ecstasy, followed by amphetamine and methamphetamine), cocaine-type substances and opiates (heroin, followed by opium and morphine).

Reports of increases continued to outnumber reports of declines for 2002. Nonetheless, a significant number of countries did see falling levels of opiate use (25% of the countries reporting), of ATS use (19%) and of cocaine use (13%). For LSD, other hallucinogens, methaqualone, morphine and barbiturates, the number of countries reporting increases was more or less the same as those reporting declines.

…except for cannabis herb, which is still accelerating

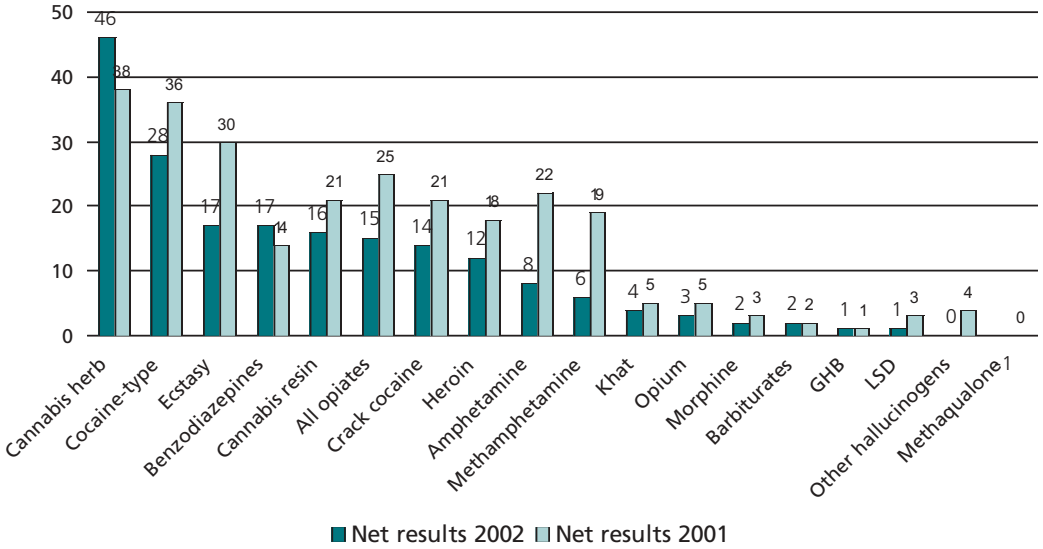
A comparison of the net results (number of countries reporting increases minus number of countries reporting declines) for 2001 and 2002, suggests that the overall spread of drug use at the global level continued, but lost some momentum in 2002. The only exceptions were cannabis herb and, to a lesser extent, the benzodiazepines, which both spread faster in 2002 than a year earlier.

Fig. 11: Global substance abuse trends of selected drugs in 2001 and 2002 (based on information from 96 countries in 2001 and 95 in 2002)



Source: UNODC, Annual Reports Questionnaire Data.

Fig. 12: Drug abuse trends 2001 and 2002
(Number of countries reporting increase less number of countries reporting declines)



Source: UNODC, Annual Reports Questionnaire Data.

The global consumption trend for heroin (stable to declining) and cocaine (stable) can be illustrated by the net number of countries reporting increases less those reporting decreases. A drug abuse index, derived from national expert perceptions (see Methodology section), is still under construction for globally aggregated heroin and cocaine trends. It can, however, be used to illustrate cannabis and ATS trends, which seem to be moving upward.

Fig. 13: Heroin use trend, 1992 - 2002
Number of countries reporting increases less number of countries reporting declining levels of abuse

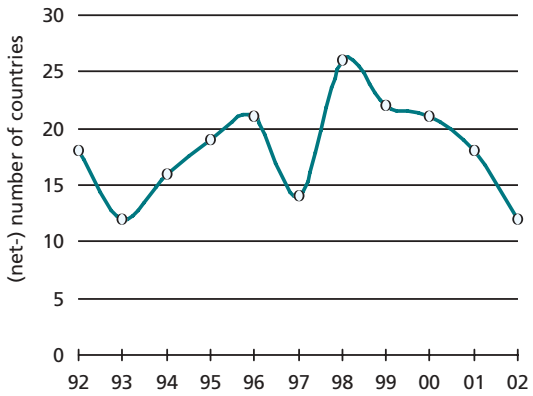


Fig. 14: Cocaine use trends, 1993 - 2002
Number of countries reporting increase less number of countries reporting declining levels of cocaine abuse

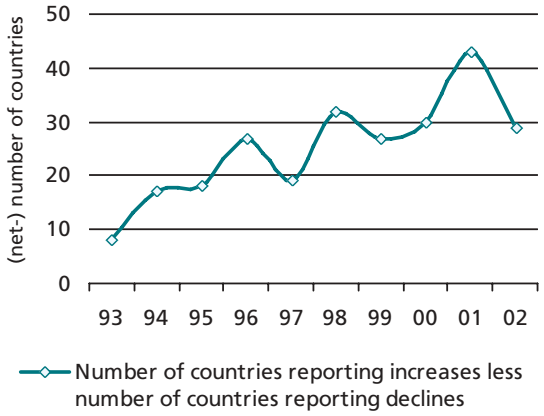
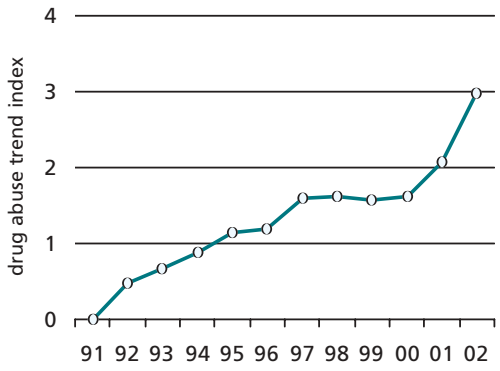
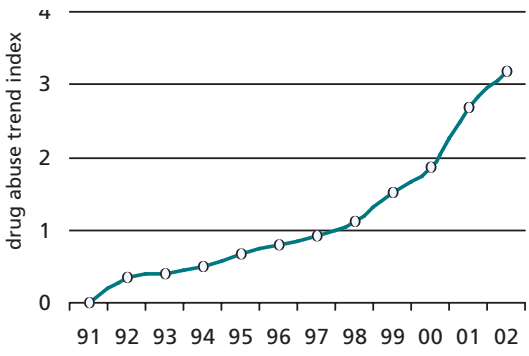


Fig. 15: Global Cannabis consumption trend: based on national experts' perceptions, 1992 - 2002



Source: UNODC, Annual Reports Questionnaire Data.

Fig. 16: Global ATS consumption trend: based on national experts' perceptions, 1992 - 2002



Source: UNODC, Annual Reports Questionnaire Data.

Sseizures are an indirect indicator of the evolution of the global drug problem

Another source of information on the evolution of the world drug problem is the seizures of illicit drugs by national law enforcement agencies. Seizure data have the significant advantage of a relatively systematic and comprehensive recording and reporting by governments. Consistent world time-series are therefore easier to build than in the case of abuse data. Although law enforcement efforts might influence the level of seizures in individual countries, independently from the actual level and evolution of the drug problem there, the evolution of seizures has generally been in line with trends in drug production and consumption where such data is available. For periods of several years and over large geographical areas, seizure data can therefore be used as a reasonably good indicator of underlying changes in illicit drug trafficking patterns and, by extension but with some caution, as an indirect indicator of the extent and evolution of the drug problem as a whole. The seizure data can be viewed from three different angles: the number of seizures, the weight, or quantities of drugs seized and the number of doses, or units of drugs seized.

The total number of seizures has increased consistently since the early 1990s, but there were signs of stabilization or decline in 2002

The aggregate level of trafficking, as reflected in the number of seizure cases reported, appears to have stabilized/declined in 2002 following a period of strong increases in the 1990s. The increase over the 1990-2000 period (from 0.3 to 1.3 million cases, or 15% p.a.) was a reflection of actual increases in trafficking as well as of improvements in reporting. In 1990, 55 countries and territories reported drug seizure cases to UNODC; by 2002, reporting had increased to 114 countries and territories. In 2001 the number of seizure cases peaked at almost 1.4 million. For 2002 the number declined, by 16%, to 1.1 million, but was still higher than in any year of the 1990s. The actual number of seizure cases at the global level is probably higher than 1.1 million because more governments report drug seizures in weight terms (176 countries & territories in 2001/2002) than in terms of the number of cases (131 over the same period).

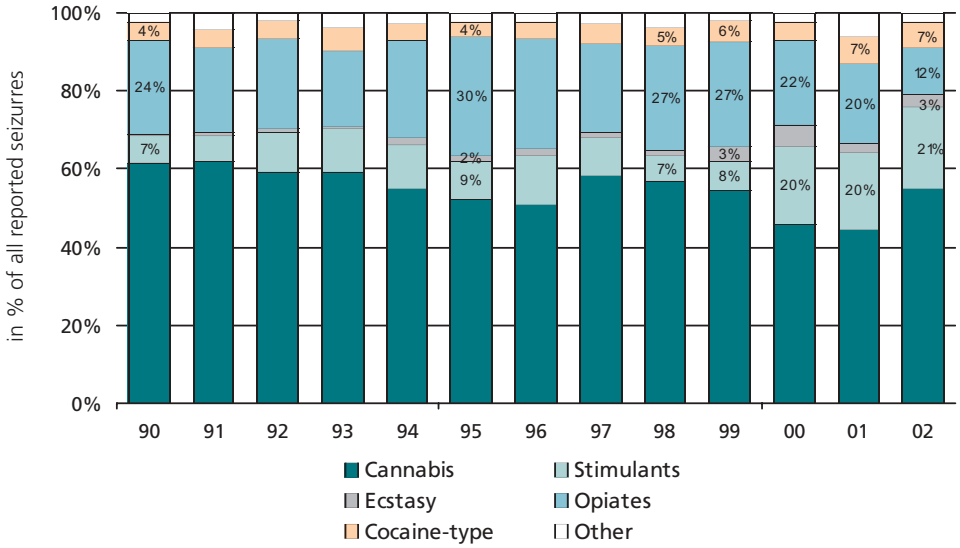
Changing patterns since the early 1990s

In 2002, cannabis accounted for 55% of all seizures cases, followed by the amphetamine-type stimulants (24%, including ecstasy), opiates (12%) and cocaine-related substances (7%). The evolution of seizure cases since the early 1990s points to the following changes in trafficking patterns:

- A decline in the relative importance of cannabis: this reflects the emergence of other substances for recreational drug use in many parts of the world as well as the development of cannabis production closer to consumer markets, which limits the possibility of making a seizure. Since 2002, however, the share of cannabis has stabilized.
- The rapid emergence of ATS: the proportion of ATS in global seizures cases more than tripled over the last decade, clearly demonstrating the rising importance of ATS production, trafficking and abuse. No significant change, however, occurred between 2001 and 2002.
- An increase of opiates: the proportion of opiates in total seizure cases increased between 1990 and 1999, reflecting inter alia the expansion of opium production in Afghanistan. As production in that country fell in 2000 and 2001, the proportion of opiates in global seizure cases also fell. There seems to be a one-year time lag between the production and the subsequent seizure of opiates. Consistent with this, the massive decline of Afghanistan's opium production in 2001 had its main impact on seizure cases in 2002. This downward trend is, however, unlikely to continue. Given rising levels of opium production in Afghanistan in 2002, 2003 and probably in 2004 as well, it can be expected that opiate seizure trends will be reversed.
- An increase, followed by stabilization, of cocaine: the proportion of cocaine in global seizure cases rose in the 1990s, in line with the expansion of coca cultivation in Colombia over that period. More recently, seizure cases have stabilized, reflecting declines of coca production in Colombia.

In terms of quantities, cannabis seizures are the largest. Based on information provided by 165 countries and territories in 2000, 161 in 2001 and 152 in 2002, cannabis products (herb and resin) represent the largest quantities of illicit drugs seized, followed by coca-type substances (coca leaf and cocaine), opiates, stimulants (amphetamine and methamphetamine), and ecstasy. This ranking has not changed in recent years, though the relative importance of ATS has increased over the last decade. Ranking the different drug categories on the basis of weight seized, however, has limited utility. Cannabis herb or coca leaf, for instance, are much bulkier products than heroin or ecstasy. It is nonetheless useful, for the purposes of trend analysis, to monitor the evolution of quantities seized from year to year.

Fig. 17: Proportion of seizure cases according to drug category, 1990 - 2002

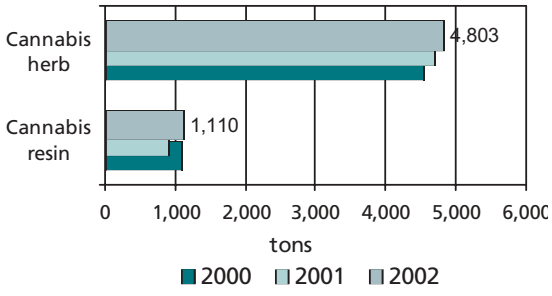


Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Quantities seized remained largely stable from 2001 to 2002, except for ecstasy, which increased

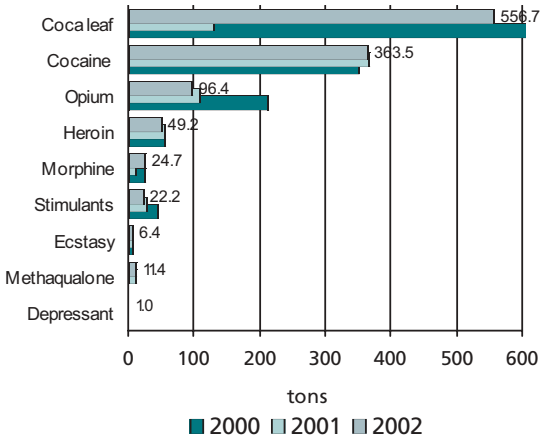
The quantities of drugs seized remained largely stable in 2002, as compared to a year earlier, with the exception of ecstasy. Seizures increased slightly for cannabis herb (3%), were largely stable for cocaine, and declined for amphetamines (-16%, following years of massive increases in the 1990s), as well as for heroin (-10%) and opium (-10%). When compared to 2000, the overall decline in opium seizures is more impressive (-55%). This probably reflects an increase in the processing of opiates within Afghanistan. By contrast, ecstasy seizures increased by 26% from 2000 to 2002, and by 37% from 2001 to 2002. Cannabis resin seizures also showed a strong increase in 2002 (+22% on a year earlier); however the increase was only 3% as compared to the year 2000.

Fig. 18: Global cannabis seizures (in weight equivalents) 2000-2002



Source: UNODC, Annual Reports Questionnaire Data/ DELTA.

Fig. 19: Global seizures (in weight equivalents) 2000-2002

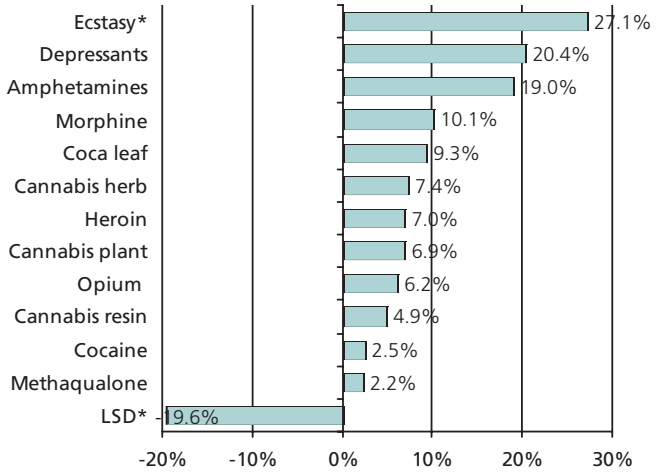


Source: UNODC, Annual Reports Questionnaire Data/ DELTA.

Quantities increased over 1992-2002, particularly for ecstasy, depressants and amphetamines

Over a 10-year period, ecstasy, depressants and amphetamines show the strongest increases. During that time, the quantities of ecstasy seized increased annually by an average of 27%, depressants by 20% (mainly benzodiazepines) and amphetamines by 19%. Cannabis herb seizures rose by 7.4% p.a., heroin by 7% p.a., cannabis resin by 5% p.a. and cocaine by 2.5% p.a. In contrast, seizures of LSD (reported in units) declined by almost 20% p.a. over the same period, establishing a trend of reduced production, trafficking and abuse of this substance over the last decade.

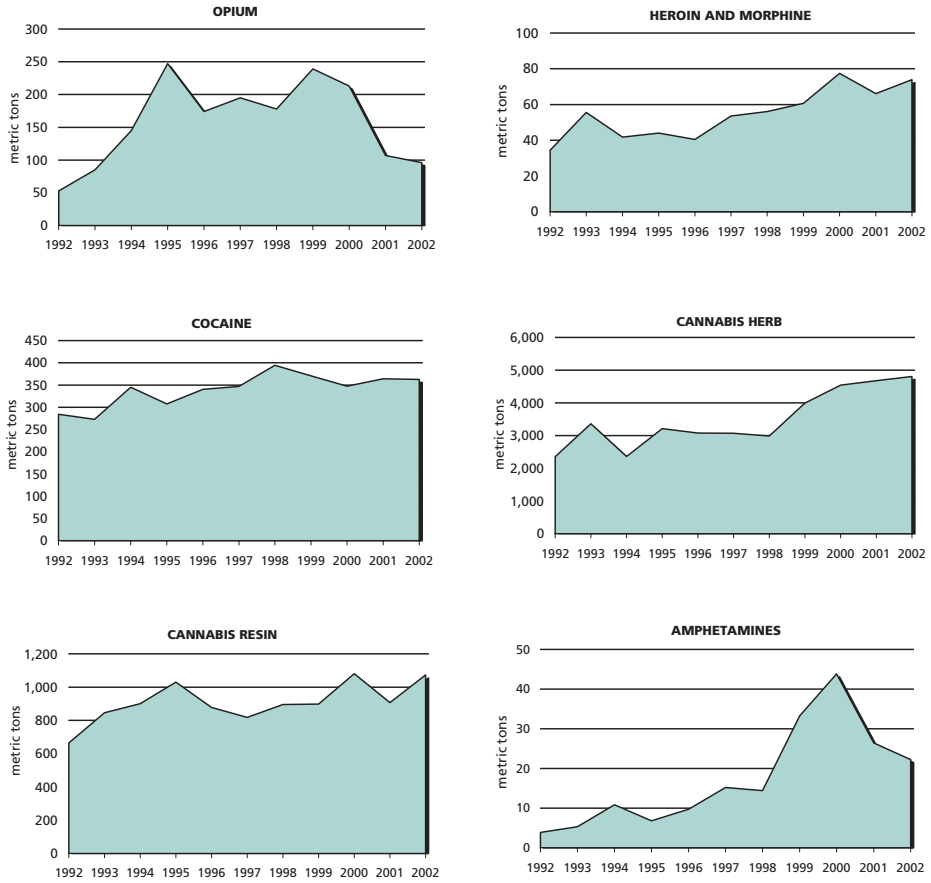
Fig. 20: Average annual change in seizures 1992-2002



* seizures in units

Source: UNODC, Annual Reports Questionnaire Data/ DELTA.

Fig. 21: Trends in world seizures, 1992 -2002 (in metric tons)



Source: UNODC, Annual Reports Questionnaire Data/ DELTA.

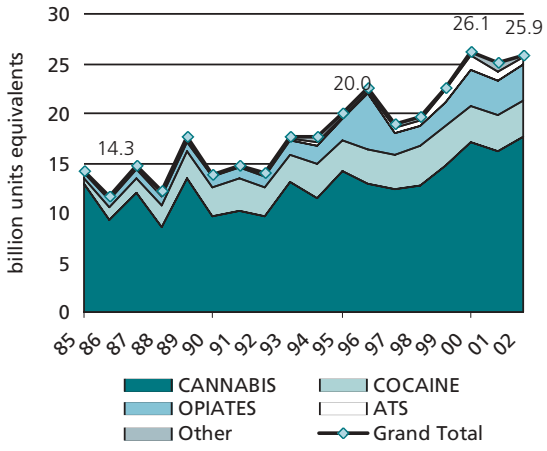
Seizures in terms of consumption units/doses…

Since the ratio of weight-to-psychoactive effect varies greatly from one drug to another, the indicator of the weight of seizures assumes more utility if it is converted into a typical unit of consumption, or the dose taken by drug users to experience a 'high'[l]. Expressing drug seizures in typical units/doses enables a more meaningful comparison of the quantities of different drugs seized. Since typical doses tend to vary across regions and user groups, however, such comparisons should only be interpreted as indications of overall patterns rather than as precise estimates.

…show strong increases through the 1990s, but signs of stabilization in 2001/2002

Some 26 billion drug units were seized in 2002. This is about the same level as in the previous two years, up from about 14 billion units in 1985 and in 1990. Based on these calculations, overall seizures increased by 6.6% p.a. from 1990 to 2000 and were basically stable over the 2000-2002 period. In 2002, 68% of all seizures (in unit equivalents) were of cannabis, 14% each were of opiates and cocaine type substances, and only 3% ATS.

Fig. 22: Global seizures in unit equivalents, 1985 - 2002



Source: UNODC, Annual Reports Questionnaire Data/ DELTA.

The low proportion of ATS in that distribution (3% versus 24% of the total number of seizures) reflects the fact that ATS trafficking is largely intra-regional, with production taking place close to consumers. The shortened trafficking chain thus limits the possibility of intercepting shipments because they seldom cross borders. As a result, seizures tend to be numerous but small when compared with other drugs (coca products, for instance, represent 14% of the units seized, but only 7% of the number of seizures).

Since 1985, unit seizures show…

Analysis of the changing proportions of the different drug groups since 1985 shows the following picture:

A decline, and then a rebound of cannabis: the proportion of cannabis in global seizures declined from 90% in 1985 to 57% in 1996, but has since resumed an upward trend, reaching 68% in 2002. This reflects increasing cannabis production and consumption in recent years.

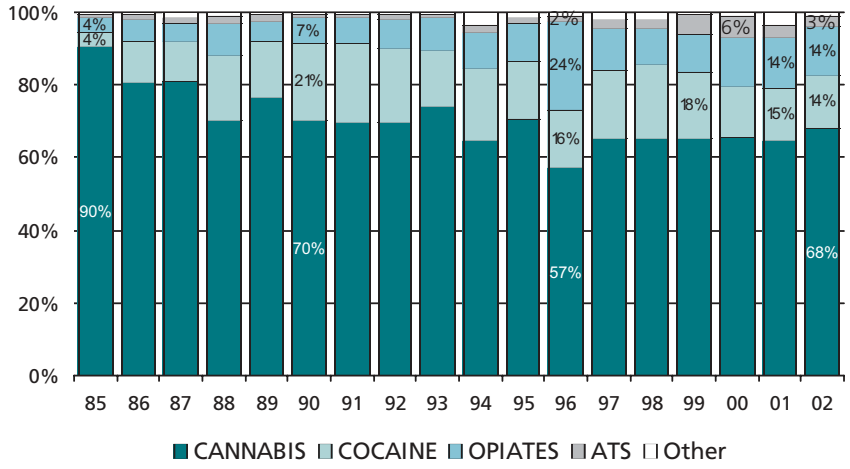
- An increase, then decline of cocaine: the proportion of cocaine in global seizures rose from 4% in 1985 to 21% in 1990, as global coca production rose rapidly. It then declined to 14% of global seizures in 2002, reflecting the recent reduction in cocaine production.

- A general increase of opiates: the proportion of opiates in global seizures rose from 4% in 1985 to 24% by 1996. It fell to 14% by 2002 as opium production in Afghanistan contracted in 2000 and 2001. Given the resumption of opium poppy cultivation in that country in 2002, a further increase in 2003 and indications of an even further increase in 2004, opiate seizures can be expected to go up.

- An increase, and then a decline of ATS: the proportion of ATS grew from about 1-2% of global seizures to 6% in 2000 (mainly reflecting a major crack-down on domestic ATS production by China). In subsequent years, the share of ATS in global seizures declined, to 3% in 2002.

l) For the purpose of this calculation, the following typical consumption units/doses (at street purity) were assumed: cannabis herb, 0.5 grams; cannabis resin, 0.135 grams; cocaine and ecstasy, 0.1 grams; heroin and amphetamines, 0.03 grams; LSD, 0.00005 grams (50 micrograms).

Fig. 23: Proportion drug categories in seizures in unit equivalents, 1985 - 2002

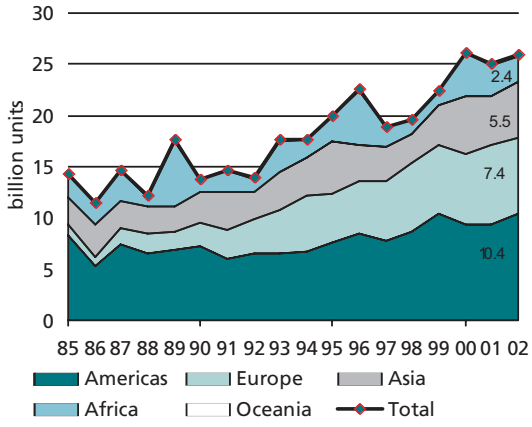


Source: UNODC, Annual Reports Questionnaire Data/ DELTA.

The intensity of trafficking is highest in the Americas, followed by Europe, both in absolute…

Seizures expressed in drug units can also give some indication of the 'trafficking intensity' and/or the efficacy of law enforcement in various regions. The strongest 'trafficking intensity' by far is recorded for the Americas, which accounted for 40% of global seizures in 2002, followed by Europe (29%), Asia (21%) and Africa (9%). Seizures in the Oceania region accounted for less than 1% of the world's total.

Fig. 24: Regional breakdown of drug seizures in unit equivalents, 1985-2002

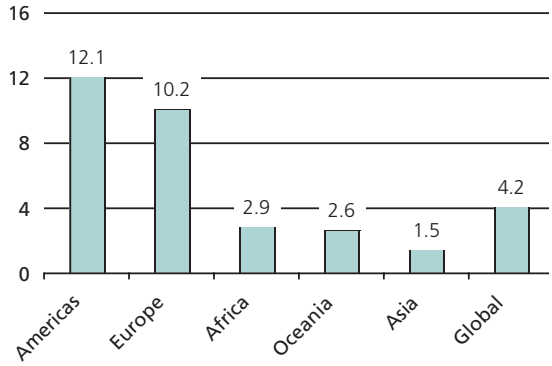


Source: UNODC, Annual Reports Questionnaire Data/ DELTA.

…and population-weighted terms

The figures given above do not take population differences into account. A calculation of seizures in unit equivalents on a per capita basis provides a somewhat different picture. The largest seizures are still found in the Americas (12 units per inhabitant in 2002)[m] and in Europe (10 units), but Africa comes next (3 units), below the global average of 4 units, followed by Oceania (3 units). Given the large population in Asia, per capita seizures in this region are relatively small (2 units per inhabitant). However, in the countries around Afghanistan (Pakistan, Iran, Central Asia) per capita seizures of 13 units in 2002 were even higher than in the Americas or in Europe.

Fig. 25: Per capita seizures of drugs in unit equivalents in 2002



Source: UNODC, Annual Reports Questionnaire Data/ DELTA.

m) They are particularly high in North America: 16.9 units per inhabitant. In South America (incl. Central America and the Caribbean) seizures amounted to 7.4 units per inhabitant and were thus still almost twice as high as the global average (4.2 units per capita).

Over 1985-2002, unit seizures decreased, in relative terms, in the Americas and increased in Europe

Seizures increased in all regions over the 1985-2002 period. The most noticeable shifts - in relative terms - were the reduced importance of seizures in the Americas (from 58% of global seizures in 1985 to 40% in 2002) and the increase in Europe (from 7% in 1985 to 29% in 2002). The patterns for the other regions are less clear because they fluctuated strongly from year to year.

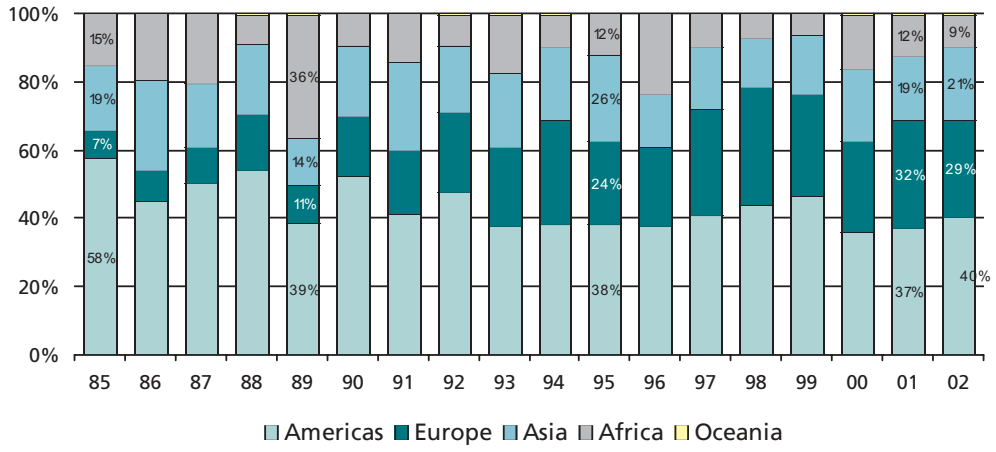
The short-term trend patterns observed from 2001 to 2002, however, are not in line with the long-term ones. Seizures increased in the Americas (from 37% to 40% of global seizures, or +12% in absolute terms), mainly due to increased enforcement efforts in South America. Seizures in Asia rose by 18% in 2002 (from 19% to 21% of global seizures), mainly due to increases reported from South-West Asia. European seizures declined by 7%, and African ones by 19%, from 12% to 9% of global seizures. The decline in Africa was caused by lower seizures reported from East and Southern Africa. By contrast, seizures increased in West and North Africa.

In regional terms, unit seizures show ...

The regional distribution of seizures in unit equivalents shows a distinct pattern:

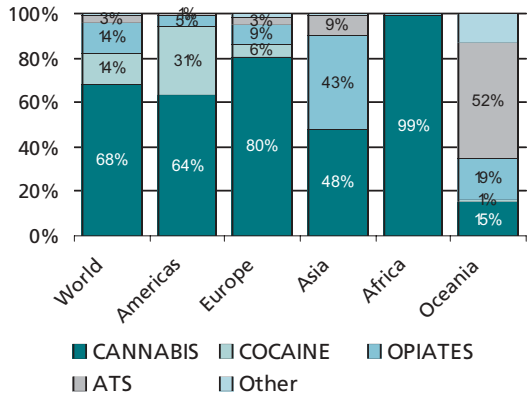
- In most regions cannabis is by far the most widely seized substance.
- In Africa, cannabis accounted for 99% of seizures expressed in unit equivalents in 2002, clearly highlighting its continuing importance in the region; the relatively low proportion of cannabis in total seizures in Oceania seems to be primarily a consequence of differences in enforcement priorities (as compared to other regions);
- Seizures of cocaine-type substances are high in the Americas (31% of the seizures in the Americas in 2002, i.e. more than twice the global average). This is consistent with the role of South America as the source of cocaine and of North America as the main consumer market for it;
- Seizures of opiates are high in Asia (43% of all Asian seizures in 2002, i.e. three times the global average), as can be expected from the presence of the main opium production centers in this region. Seizures of opiates - in proportional terms - are almost twice as high in Europe (9% of European seizures) as in the Americas (5% of American seizures);
- Seizures of ATS, in proportional terms, are highest in Oceania, accounting for about half of all seizures in 2002. In Asia, ATS account for 9% of all seizures. If only East- and South-East Asia are considered, ATS account for about half of all seizures. In absolute terms, ATS seizures are higher in Asia than in any other region.

Fig. 26: Proportion of drug seizures in different regions based on seizures in unit equivalents, 1985-2002



Source: UNODC, Annual Reports Questionnaire Data/ DELTA.

Fig. 27: Regional breakdown of seizures in unit equivalents



Source: UNODC, Annual Reports Questionnaire Data/ DELTA.

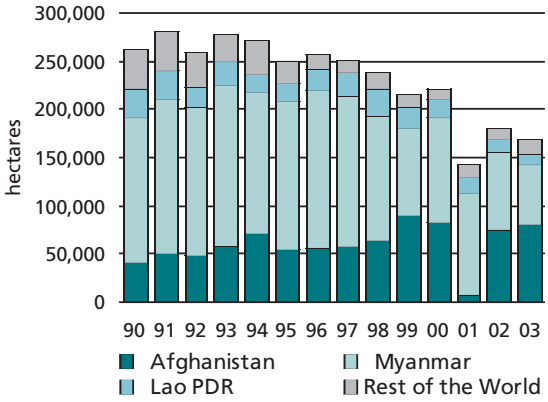
The global production trend is stable for opium, declining for coca, and seems to be increasing for cannabis and the ATS

The global illicit production of opium (from which heroin is processed) has remained stable, at around 4,000 to 5,000 metric tons, since the early 1990s, but has become increasingly concentrated in Afghanistan. Coca cultivation (cocaine is extracted from the leaves of the coca bush) was stable during most of the 1990s, but has been steadily decreasing since 1999 (minus 30% from 1999 to 2003). There is unfortunately not enough data to establish a precise global illicit production trend for cannabis, which appears to be increasing. Cannabis is now reportedly cultivated in more than 140 countries throughout the world. The situation is somewhat similar for ATS, although the spectacular progression in the number of seizures of illegal laboratories since the mid-1990s (from less than 1000 in 1995 to about 10,000 in 2002) is in line with the trends reported for ATS consumption.

Fairly robust data series are available to monitor the global evolution of illicit cocaine and opiate production over time. This is unfortunately not the case for ATS and even less so for cannabis. For those two drug categories, the consumption and especially seizure data presented above, and detailed in subsequent chapters of this report, still offer the best sources of information available.

For the opiates, monitoring systems based on annual surveys of illicit opium poppy cultivation in source countries indicate that world illicit production has basically remained stable since the early 1990s, at around 4,000 to 5,000 metric tons per year. This period, however, has been characterized by a major shift of production from South-East to South-West Asia, with an increasing concentration in Afghanistan. It is also marked by the emergence of opium production in Colombia, albeit at much lower levels than in Asia.

Fig. 28: Global opium poppy cultivation, 1990 - 2003 (ha)



For cocaine, the cultivation of the raw material (the leaf of the coca bush) is concentrated in three countries of the Andean region. During the 1990s, coca cultivation and potential cocaine production remained more or less stable, but increasingly shifted from Peru and Bolivia to Colombia. From 1999 to 2003, however, coca cultivation declined by 46% in Colombia, and by 30% in the three countries taken together. As a result, the potential availability of cocaine on world markets has been reduced significantly and is now at the lowest level since the late 1980s.

Fig. 29: Global coca bush cultivation, 1990 - 2003 (ha)

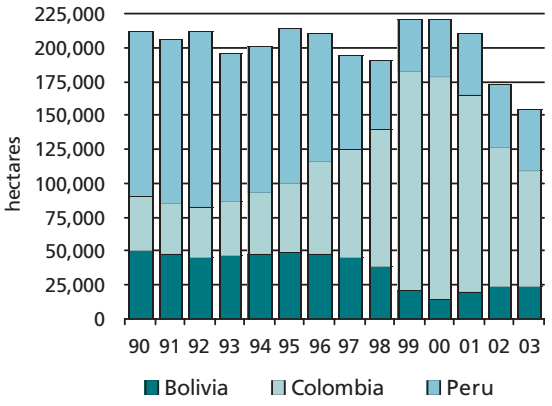
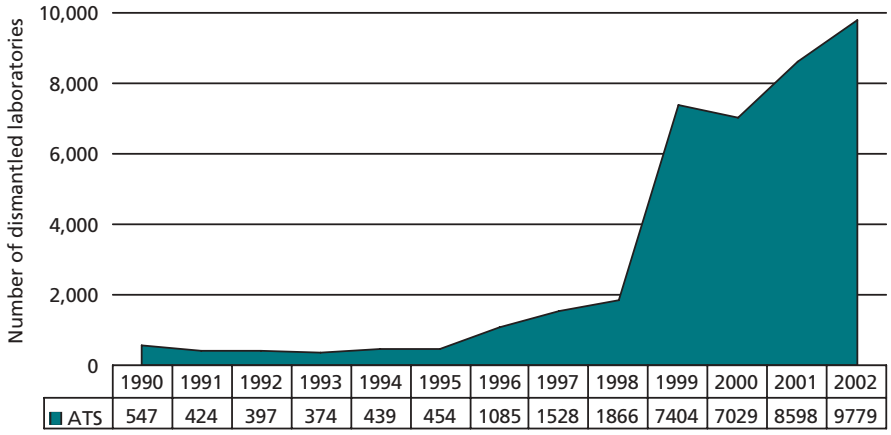


Fig. 30: Detections of clandestine ATS laboratories at the global level, 1990-2002



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
ATS	547	424	397	374	439	454	1085	1528	1866	7404	7029	8598	9779

Source: UNODC, Annual Reports Questionnaire Data.

1.2.3. The outlook for world drug markets

Opiate market at the crossroads in Afghanistan

Considering trends in cultivation, production and consumption, the global heroin market was largely stable in 2002, but there are indications of a slight expansion in 2003 and a larger one is forecast for 2004. As opium poppy cultivation is increasingly concentrated in Afghanistan, which has been producing three-quarters of the world's illicit opium in recent years, the fate of the world heroin market will largely depend on what happens in that country.

Last year, UNODC reported that although production had generally stabilized over the 1998-2002 period, major shifts were at work. This analysis has been borne out for 2003. One example of a continuing market trend is the consolidation and contraction of cultivation. More than 90% of global opium production takes place in Afghanistan, Myanmar and Laos, with Afghanistan now assuming the vast majority of this share. In 2003, Myanmar and Laos experienced strong declines in cultivation, minus 24% and minus 14% respectively. Both countries have been implementing resolute opium elimination programmes in recent years and already achieved a cumulative reduction of 60% of the area under cultivation since 1996. The trend is expected to continue in 2004 and, if sustained over the next few years, would virtually take South East Asia off the global illicit opium production map. The rapid pace of elimination is, however, putting tremendous economic pressure on farmers, often from ethnic minorities, who have relied for so long on opium production as a means of survival. There is evidence in the eastern Shan states of Myanmar, that some of those populations are now facing a serious humanitarian crisis. As Myanmar and Laos are assuming their responsibilities in reaching the goals agreed upon by the international community at the UNGASS, it is of paramount importance that the donor community fully takes its share of the burden as well and provides relief and development assistance to a population that belongs to the poorest of the poor. Myanmar and Laos ranked 131st and 135th, respectively, out of 175 countries, on the 2003 Human Development Index[n]; and the ethnic minorities who live in the remote opium producing areas have a standard of living that is even below that of the general population.

Afghanistan, in contrast, experienced an 8% increase in total area under opium poppy cultivation in 2003. This increase was offset by the reduction in South East Asia and, globally, illicit opium cultivation declined by 6%. Perhaps more relevant, however, are the shifts in pro-

n) UNDP, *Human Development Report 2003*, New York, 2003.

duction. These continue and could redefine the characteristics of the supply side of the heroin market in the future. In particular the variation in opium yield between cultivation sites continues to influence production trends. Therefore, despite the absolute decrease in cultivation, increasing cultivation in Afghanistan, combined with the higher yield per hectare (typically three to four times higher than in South East Asia) has lead to a 5% rise in global illicit opium production in 2003. Especially with cultivation in Afghanistan forecast to rise in 2004 , this trend is expected to continue and global opium/heroin production to expand.

The extent to which these supply trends have defined the market, especially in Western and Eastern Europe, Central Asia, and the Russian Federation, has been made apparent by the disastrous social and health consequences they bring with them. This could jeopardize the sustainability of the stabilization of heroin abuse recorded in 2002, a late consequence of the opium production ban in Afghanistan in 2001. There are even signs that in 2002, newly reported cases of Intravenous Drug Use (IDU) related HIV declined strongly in Europe's largest heroin market, the Russian Federation (minus 43%). However, in some countries, including the Russian Federation, stabilization has occurred at very high levels. As these are, by now, established heroin consumer markets, it could mean that if supply increases this year and next year (when the 2004 Afghanistan opium production reaches the market), as forecast, increased availability could raise demand.

Unlike in South East Asia, the opium production problem in Afghanistan is deeply intertwined with the overall political and socio-economic situation of the country . As a consequence, it cannot be solved separately and needs to be tackled as an integral part of the stabilization and reconstruction agenda. Because of Afghanistan's overwhelming role in the supply of illicit opiates, rapid progress (over a few years) in eliminating opium production there could well dry up the world heroin market. Timing is crucial, however, because a gradual approach to elimination would only enable the market to adapt, as it has often done in the past, and production to shift to other areas. The Afghan government has adopted a national drug control strategy that calls for 75% reduction of opium production within five years. The main obstacles currently hindering its implementation appear to be the poor security situation in the provinces and the involvement of local warlords and, in some cases, of provincial authorities, in the drug business.

Progress on the control of cocaine supply offset by geographical spread of consumption

While the markets are inherently different, some of the same characteristics of consolidation and stabilization, which have been recently observed in the global heroin market, are also present in the global cocaine market.

The general stabilization and decline in coca cultivation and cocaine production has been sustained for the fifth year in a row. There is no indication that this trend is likely to be reversed. Vigilant supply reduction efforts continue in Colombia, Peru and Bolivia. While there have been some set backs, these efforts are likely to be sufficient to sustain overall declines in cultivation and production. The overall area under cultivation fell to 154,000 ha in 2003. Both cultivation and production remain heavily concentrated in Colombia, where 56% of coca bush cultivation and 67% of cocaine production took place in 2003.

Last year, UNODC reported that Bolivia and Peru were having difficulties in consolidating the declines in their countries. Although the downtrend was sustained in Colombia, its pace slowed from minus 30% in 2002 to minus 16% in 2003. Setbacks included shifts in the localities under cultivation in the individual countries. In Bolivia, for instance, cultivation in the area of the Yungas of La Paz grew 17%, to represent 71% of the total coca cultivation of the country, and in Colombia cultivation in Narino and Meta increased 17% and 38% respectively.

The last peak in cocaine production was in 1999. Since that time, global cocaine seizures have stabilized and gradually declined in line with production. Unfortunately, the cocaine market has been able to establish itself in new geographical locations. Although the bulk of seizures still take place in the Americas, they have declined steadily along a general trend since 1991, while seizures (and consumption) in Western Europe have increased along a slightly steeper general trend over the same period. In North America and Western Europe, seizures for 2002 fell by about a fifth, parallel to a dramatic and encouraging rise in seizures in the three

o) UNODC, *Afghanistan, Farmers' Intentions Survey 2003/2004*, Vienna, February 2004.
p) UNODC, *The Opium Economy in Afghanistan*, An International Problem, New York, 2003.

source countries. Seizures in Colombia exceeded those in the USA in 2002 and were the largest worldwide.

It is the long-term dispersion of the cocaine market, however, that appears to have more relevance for policy makers. The cocaine market has been characterized by a high degree of adaptability. Over the last ten years the criminal organizations that run the market have been disbanded, but have re-formed. They are now run in a completely different manner than they were ten years ago. Despite the potential disruption caused by this, the declines in production, and the completely changed composition of production, which has led Bolivia to become an almost negligible producer and Peru to produce only a fifth of global supply, new markets are still being established today.

While there are indications that the expansion of cocaine consumption is losing some of the momentum it had in the 1990s, and while traditional markets such as the USA and Mexico are stabilizing, new markets continue to emerge. According to UNODC's Drug Abuse Trend Index, cocaine use has increased dramatically in Southern America, Central America and the Caribbean since 1995. Abuse levels are high and increasing in Brazil and Colombia. There are exceptions to this trend in Bolivia and Peru.

Europe, one of the fastest growing cocaine markets over the last decade, has shown signs of stabilization, notably in the UK and Germany in 2003. Growth since 2000 in other European countries, including Spain, France, the Benelux countries, Italy, Switzerland, Austria and the Balkans, however, indicates that the European cocaine market remains buoyant. Another indication of this is the continued emergence of crack cocaine in several European locations. Notorious for its association with high levels of violence and crime and the destructive effect it has had on North American urban communities, crack cocaine is also known to be persistent once it gets a foothold in a local market. This trend should be monitored closely. Albeit still at low levels, significant growth in cocaine consumption has taken place in the Near East and South Asia, including in India, the world's second most populous country. Most of this expansion has only taken place in the past three years, providing further indication that the cocaine market continues to disperse geographically.

The coca market has caused many serious social problems for all countries in the Andean region. The minute 0.075% of Colombia's national territory which were under coca cultivation in 2003, for example, belies the devastating effect this trade has had on the country. Colombia faces a myriad of social and economic problems. Some of which are related to the illicit drug trade and some are not. On May 10, 2004, Jan Egeland, the United Nations Under Secretary General for Humanitarian Affairs stated "Colombia is by far the biggest humanitarian catastrophe of the Western hemisphere". (UN Press Briefing 10/5/04.) According to the Colombia coca survey for 2003, over the past 5 years over 1.5 million people are thought to have fled to escape rural violence. The country has the third largest internally displaced population crisis in the world. The level of homicides and kidnappings is extremely high.

Internal displacement is one of the most damaging things which can happen from a humanitarian point of view. This level of disenfranchisement leaves the person with no community, no security, often no shelter, food, water, sanitation, healthcare and education. It is one of the most dangerous situations a human being can be in, especially in high conflict areas. While most of Colombia's internally displaced persons end up in the sprawling barrios and shanty towns around large cities, others end up engaged in illicit production activities, putting them at even further risk and perpetuating the displacement cycle. All coca growing areas in Colombia show a high level of forced displacement.

The Andean region, Colombia in particular, have suffered greatly as a result of cocaine production. Consequently, over the last years, governments in each country have been making concerted efforts to reduce the cultivation of coca and production of cocaine. After three years of declines the international community can be confident that actions at the national level are having beneficial effects.

Cannabis: a thriving market

Dispersion is a defining characteristic of the world cannabis market. Cannabis is the most widely produced, trafficked and consumed illicit drug in the world. The market in which the drug is produced, traded and consumed is pervasive and persistent, perhaps because of the vast number of places in which the drug is produced and the high levels of availability which this has created.

If cannabis plant seizures are used as an indicator, as many as 142 countries produced cannabis between 1992 and 2002. The bulk of the trafficking of cannabis herb takes place in North America, with Mexico and the USA respectively accounting for 34% and 23% of global seizures. These two countries are followed by Nigeria, Brazil and South Africa.

The production of cannabis resin is concentrated in 40 countries. Three of these, Morocco, Pakistan and Afghanistan, are main producers. Consumption is concentrated, and increasing, in Western Europe. Two thirds of all cannabis resin were seized there and some 80% of that apparently originated in Morocco. In 2003, UNODC and the Government of Morocco conducted the country's first comprehensive cannabis survey. The survey revealed a potential cannabis resin production of 3,080 metric tons.

As noted in previous sections of this chapter, the global market for cannabis continues to thrive. Consumption is rising in South America, and the market continues to expand in both Western and Eastern Europe, as well as in Africa. In the United Kingdom, Europe's largest cannabis market, use has stabilized over the last three years, but at extremely high levels: among the general population it is now twice as high as it was in the early 1990s. Even in Asia, where increases in cannabis use are less pronounced, the two most populous countries, China and India, have reported large increases. However, use has remained generally stable in the USA, the world's largest cannabis market in economic terms. This trend was largely paralleled in Ontario, the most populous province of Canada, and in Mexico.

Mixed signals from ATS markets

Although the market for ATS is expanding and buoyant, there are some signs that the rate of increase is not quite as rapid as it was over the last ten years. The ATS market is fragmented and geographically distinct. It is essentially composed of a number of chemically related synthetic drugs, three of which - amphetamine, methamphetamine and ecstasy - dominate certain regions. Also, unlike the plant-based drugs, ATS are produced with chemicals that are common and often readily available, in easily concealed laboratories. Because these laboratories tend to be small and portable (sometimes even referred to as 'kitchen laboratories'), interdiction is easily eluded through moving or abandonment. Manufacture frequently takes place close to the consumers and less high-risk international trafficking is required. These characteristics, which will continue to define the market in the future, are extremely important because of the adaptability they give to producers and distributors. Consumers, also, have demonstrated flexibility - especially regarding ecstasy. This has led to a situation where the three main geographical regions of ATS consumption are expanding and partly merging. Finally, it is possible that the proximity of the production sources to the main markets could mean that there is a more direct link between declines in availability and declines in consumption.

Internationally, law enforcement agencies have become aware that it is these production characteristics which led, at least in part, to the market's phenomenal growth over the past ten years. They therefore concentrate on dismantling laboratories and interdicting precursor chemicals. There has been a clear upward trend in their ability to do this and, in 2002, more than 9,300 clandestine methamphetamine laboratories were dismantled, a 14% increase over the previous year. Most of these were dismantled in the USA. In several countries of Western Europe, enforcement efforts were also intensified, including the Netherlands, the main source of ecstasy and amphetamine in Europe. Ecstasy production is also beginning to appear in South-East Asia, along with large-scale production of methamphetamine.

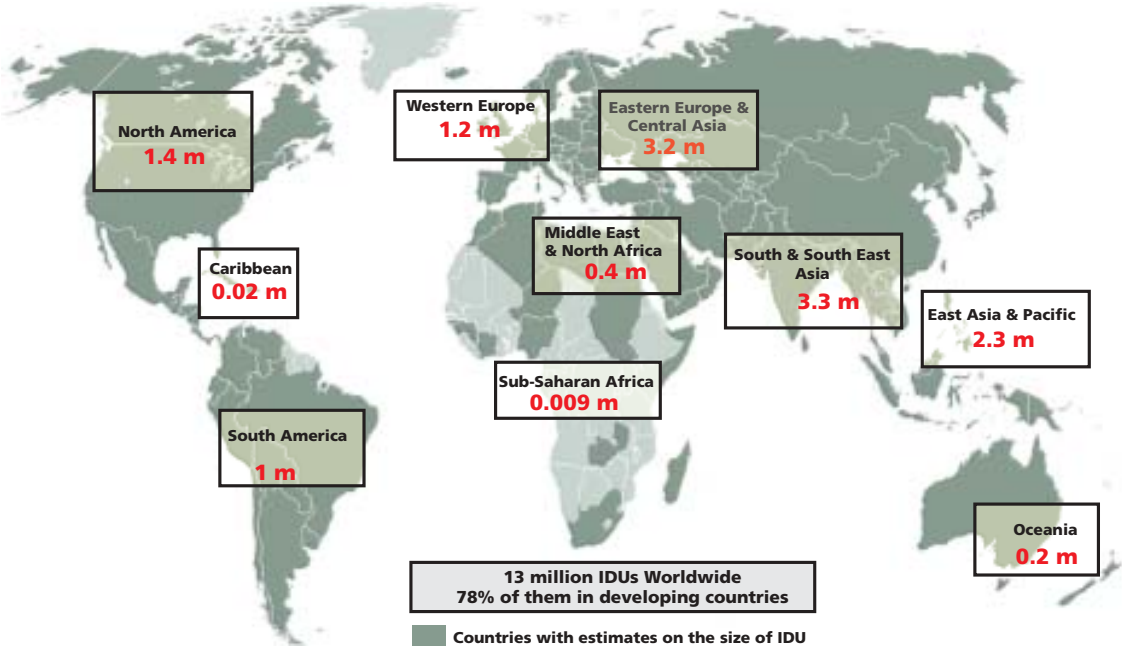
Of all the ATS, methamphetamine has the most negative health and social consequences. It is prevalent in North America and East and South-East Asia, which is its largest market. Methamphetamine abuse continues to rise in the region, especially in China, Singapore, Myanmar and the Republic of Korea. China's market, which is relatively recent, has been characterized by an extremely steep increase since 1997. There are indications that this is due to the introduction of ecstasy in that year and its possibly overtaking methamphetamine in the recent period. Thailand, which has one of the highest methamphetamine prevalence rates in the world, experienced a decline in consumption in 2003, and a stabilization/decline is thought to have occurred in Japan. There have also been some positive signs in Europe: amphetamine consumption seems to be stabilizing, with continuing declines reported from the UK and Ireland. After years of steep increases, amphetamine use stabilized for the first time in Eastern Europe in 2002. A resurgence of methamphetamine and amphetamine markets, however, cannot be excluded. The flexible production structure and negative health consequences of the drugs therefore make it imperative that control and prevention efforts are intensified.

The global market for ecstasy continues to expand, although at a much slower pace than in previous years. The evolution of this market is a cause for serious concern. While there are signs of stabilization or contraction in some of the more established markets of Western Europe and North America, and a loss of momentum in the increases reported from Oceania (which seems to have the highest levels of ecstasy use worldwide) the market is expanding to several developing regions where public resources for prevention and control are scarce. Apart from the example of China, which was cited above, the ecstasy market seems to be expanding into other parts of Asia, South America and Southern Africa.

1.3 INJECTING DRUG USE AND HIV/AIDS

Global estimates, provided by UNAIDS and WHO, indicate that by the end of 2003 between 34 and 46 million people were living with HIV/AIDS. Between 4.2 and 5.8 million people were infected in 2003 alone. In the same year, between 2.5 and 3.5 million people died of AIDS. While the bulk of new infections are due to unsafe sexual behaviour, the use of contaminated injection equipment among injecting drug users continues to fuel the pandemic, particularly in Eastern Europe, Central, South and South-East Asia and Latin America.

Map 2: Estimates on the size of the IDU populations available in 130 countries and territories (1998 - 2003)



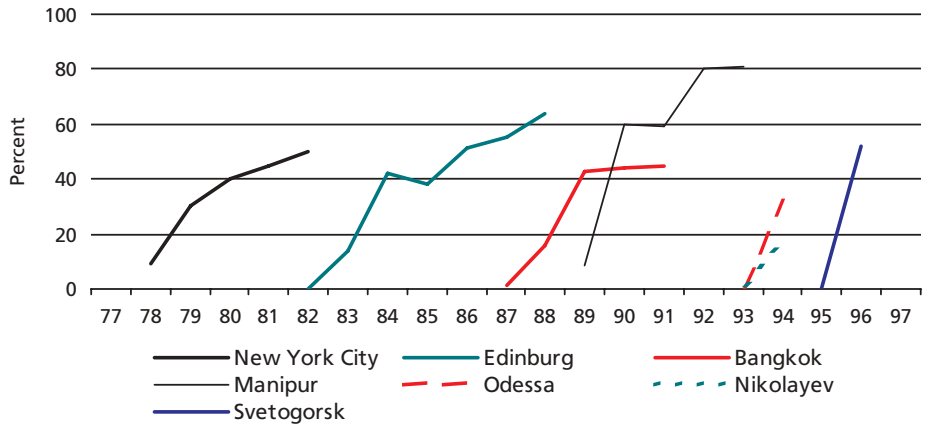
Source: Reference Group on the Prevention and Care of HIV/AIDS Among Injecting Drug Users, 2002.

1.3.1 Extent and characteristics of HIV/AIDS epidemics among injecting drug users

According to a review of the Reference Group on the Prevention and Care of HIV/AIDS Among Injecting Drug Users in 2003, information on the size of the injecting drug users population is available for 130 countries and territories, and data on the association of HIV infection with injecting drug use for 78. The group estimated that there are approximately 13 million injecting drug users worldwide, of which 8.8 million are in Eastern Europe, Central, South and South-East Asia, 1.4 million in North America, and 1 million in Latin America.

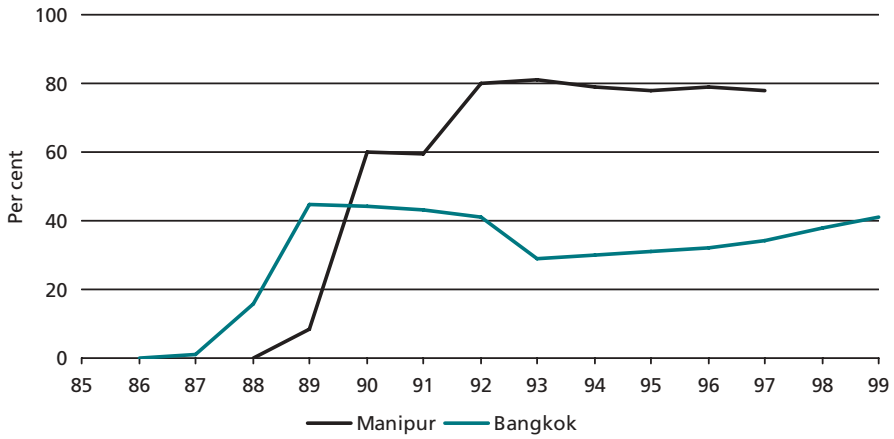
HIV/AIDS epidemics among injecting drug users are characterised by significant regional and in-country variations, but prevalence figures for HIV/AIDS among injecting drug users easily reach more than 50% and in some cases up to 90% of the injecting drug use population in a very short period of time, often less than six months. Examples for such epidemic explosions include various cities in North America, some countries of the former Soviet Union, and countries and localities in South and South-East Asia. Experience also shows that if resolute action is not taken quickly, prevalence remains at very high levels for a long time.

Fig. 31: Outbreaks of HIV/AIDS epidemics among injecting drug users, selected cities



Source: Ball, AL, Rana S, Dehene, KL, HIV Prevention among Injecting Drug Users: Responses in Developing and Transitional Countries, Public Health Reports 113, Supplement 1, 170-181, 1998; and Stimson GV, Adelekan M, Rhodes T, The diffusion of drug injection in developing countries, Paper presented at the Sixth International Conference on the Reduction of Drug Related Harm, Florence, Italy, 1995

Fig. 32: HIV/AIDS prevalence among injecting drug users in Manipur (India) and Bangkok (Thailand) 1988-1997

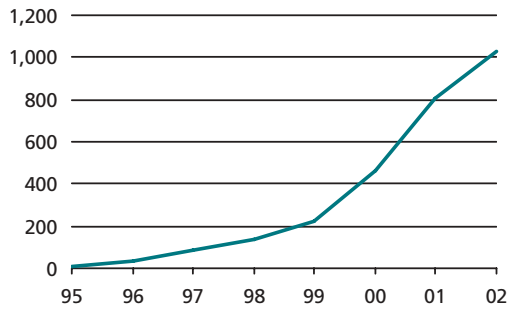


Sources: U.S. Census Bureau, Population Division, International Programs Center, Health Studies Branch, May 2003, and Weniger BG, Limpakarnjanarat K, Ungchisak K, Thanprasertsuk S, Choopanya K, Vanichseni S, Uneklabh T, Thongcharoen P, Wasi C. *The epidemiology of HIV infection and AIDS in Thailand*, AIDS 1991; 5(suppl 2): S71-S85

The recently evolving HIV/AIDS epidemics in countries of the former Soviet Union are of particular concern. Though heroin is the most frequently injected drug, a significant number of users also inject the so-called 'home produced' drugs, including 'jeff' and 'vint' (ephedrine-based stimulants extracted from cough syrups or tablets), and 'hanka' (a liquid derivative of opium poppy). The sharing of injection equipment, particularly needles and syringes, is widespread with many injecting drug users also reporting practices whereby a drug solution is squirted from a donor syringe into another, either by removing the plunger ('back loading') or needle ('front loading') from the receiving syringe. Drug users often share filters and rinse water, and draw up their drug solution from a common pot.

Various explanations have been offered for the HIV/AIDS epidemic in these countries. The most frequently cited ones concern the collapse of institutions, particularly for health and drug control, which followed the break-up of the Soviet Union. This, combined with expanding production in Afghanistan, created a huge influx and increased availability of drugs. Drug treatment and health care facilities could not cope with the rapidly increasing number of injecting drug users and the health and social consequences of drug use. One of the most disturbing dimensions of the epidemic is the fact that young people below the age of 24 constitute the majority in the drug injecting population and are those mostly affected by HIV/AIDS[q].

Fig. 33: Registered HIV infections per million in countries of former USSR, cumulative



Source: European Centre for the Epidemiological Monitoring of AIDS, HIV/AIDS surveillance in Europe, Report 69, Midyear Report 2003

Serious HIV/AIDS epidemics among injecting drug users have also been observed in countries of South, South-East and East Asia. Many of these countries have a tradition of opium smoking for health reasons (to ease the symptoms of lung and bowel diseases). With changing illicit drug market patterns, however, many users switched from smoking opium to injecting heroin, thereby significantly increasing the risk of blood-borne infections. Except for Cambodia, all HIV/AIDS epidemics in that region started in injecting drug use populations in the late 1980s and early 1990s, and later moved into the general population. Injecting drug use still remains the most frequent route of HIV transmission in these countries and continues to fuel the epidemics[r].

In countries of Latin America, cocaine is the most frequently injected drug. Cocaine users inject more frequently than opiate users, thereby increasing significantly the risk of HIV transmission. As in other countries, drug consumption behaviour depends on illegal drug market patterns, and particularly in Latin American countries crack cocaine, which is not injected, sometimes replaces cocaine use. Evidence suggests that the use of crack is strongly associated with high-risk sexual behaviour, thus contributing to the spread of HIV[s].

q) Tim Rhodes, Catherine Lowndes, Ali Judd, Larissa A. Mikhailova, Anya Sarang, Andrey Rylkov, Mikhail Tichonov, Kim Lewis, Nina Ulyanova, Tatiana Alpatova, Victor Karavashkin, Mikhail Khutorskoy, Matthew Hickman, John V. Parry and Adrian Renton: *Explosive spread and high prevalence of HIV infection among injecting drug users in Togliatti City, Russia*; AIDS 2002, 16:F25-F31

r) Reid,G and Costigan, G. Revisiting *The Hidden Epidemic; A situation assessment of drug use in Asia in the context of HIV/AIDS*. The Centre for Harm Reduction, Australia, January 2002; The World Bank, Social Monitor Thailand, *Building on Success*, *Confronting the future*, Bangkok, November 2000

s) Rossi D, Goltzman P, Cymerman P, Touze G, Weissenbacher M.Human immunodeficiency virus/acquired*Immunodeficiency syndrome prevention in injection drug users and their partners and children: lessons learned in Latin America--the Argentinean case*. Clin Infect Dis. 2003 Dec 15;37 Suppl 5:S362-5;Touze G. Obstacles to the development of prevention and public health policies in Argentina. Clin Infect Dis. 2003 Dec 15;37 Suppl 5:S372-5; Calleja JM, Walker N, Cuchi P, Lazzari S, Ghys PD, Zacarias F. *Status of the HIV/AIDS epidemic and methods to monitor it in the Latin America and Caribbean region*. AIDS. 2002 Dec;16 Suppl 3:S3-12.

The rise in HIV infections among injecting drug users in the Middle East and North Africa is also a cause for concern. In some countries, more than half of all known HIV infections are among injecting drug users. Prison settings seem to be particularly high-risk environments: HIV prevalence among injecting drug users in 10 prisons in Iran has reached as high as 63 per cent. It has been estimated that Iran could be home to as many as 200,000 injecting drug users[t].

1.3.2 HIV transmission among injecting drug users

The shared use of syringes and needles has been associated with HIV transmission among injecting drug users since the beginning of the HIV/AIDS pandemic in the 1980s. Commonly referred to as "syringe or needle sharing," this represents a situation in which two or more drug users sequentially use the same injecting equipment to inject a dose of liquefied drugs, such as heroin, other opiates, cocaine or amphetamines. Factors that lead to needle and syringe sharing include borrowing and lending, selling, buying and renting, or even picking up a syringe discarded by a previous user. Sharing of needles and syringes is often a consequence of a lack of perceived risk for HIV infection, group norms and rituals, inaccessibility of clean injecting equipment, and / or the inability to carry injecting equipment due to familial, social or legal environments.

In situations where injecting drug users prepare and use drugs together, a variety of additional avenues for HIV transmission exist. For example, injecting drug users often share items while preparing the drug for consumption, including cookers, water cups, filters, spoons and swabs, ampoules and other containers used for drug preparation, storage and transport, among others. Within the networks of drug consumers, use of drugs is rarely an individual act and the sharing of drugs is an important and frequent communal activity, associated with economic and social incentives. One situation, strongly associated with HIV infection, is the use of so called "shooting galleries", particularly when renting injection equipment at these venues is included. Another context is the use of professional injectors, where those selling the drugs also do the injecting, using the same syringe and needle for many clients.

There are indications that individual risk behaviour is influenced by the context in which drugs are purchased and used, including drug paraphernalia laws, which govern the accessibility and availability of clean injecting equipment, drug policing and law enforcement practices, gender, ethnic and health inequalities, and general public policies oriented to health and drug use more broadly.

There is evidence that individual injecting risk behaviour and HIV infection among injecting drug users is associated with the length of the drug taking career[u], injecting frequency[v], the types of drug used[w], unstable living conditions[x], imprisonment[y] as well as the availability of clean injection equipment[z]. The length of the injecting career is positively associated with the likelihood of being infected with HIV. Some studies[aa] suggest, however, that younger, less experienced injectors are at an increased risk for HIV infection, because they seem more likely to engage in risk behaviours, while their older, more experienced counterparts may be more competent in managing risk situations.

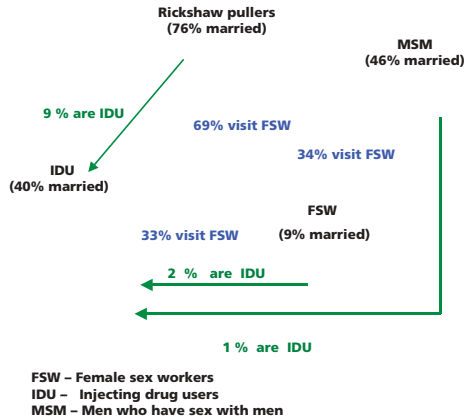
HIV is not only transmitted through the sharing of injection equipment among injecting drug users, but also through sexual transmission to partners. High-risk sexual behaviour, i.e., having sex without using a condom, is often linked with drug use. Female drug users who are also sex workers and do not use condoms regularly are particularly at risk of acquiring and trans-

t) UNAIDS, WHO. AIDS Epidemic Update, December 2003.
u) Estebanez P, Russell NK, et al. Determinants of HIV prevalence amongst female IDU in Madrid. Euro J Epidemiol 2001;17(6):573-580.
v) Bruneau J, Lamothe F, et al. Sex-specific determinants of HIV infection among injection drug users in Montreal. Canadian Med Assoc J 2001:164(6):767-73; Strathdee SA, Galai N, Safaiean M, Celentano DD, Vlahov D, Johnson L, Nelson KE. Sex differences in risk factors for HIV seroconversion among injection drug users: a 10-year perspective. Arch Int Med 2001;161:1281-1288.
w) Chaisson RE, Bacchetti P, Osmond D, Brodie B, Sande MA, Moss AR. Cocaine use and HIV infection in intravenous drug users in San Francisco. JAMA 1989;261:561-565.
x) Patrick DM, Strathdee SA, et al. Determinants of HIV seroconversion in injection drug users during a period of rising prevalence in Vancouver. Int J STD AIDS 1997:8(7):437-45.
y) Muller R, Stark K, Guggenmoos-Holzmann I et al. Imprisonment: a risk factor for HIV infection counteracting education and prevention programmes for intravenous drug users. AIDS 1995;9:183-90.
z) Grund J-PC, Friedman SR, Stern LS, Jose B, Neaigus A, Curtis R, Des Jarlais DC. Drug sharing among injecting drug users: patterns, social context, and implications for transmission of blood-borne pathogens. Soc Sci Med 1996;42(5):691-703.
aa) For example, Fennema JSA, van Ameijden EJC, van den Hoek A, et al. Young and recent-onset injecting drug users are at higher risk for HIV. Addiction 1997;92:1457-1465.

mitting HIV. In several countries, such as the United States, Spain and Italy, sexual transmission of HIV from injecting drug users to non-drug injecting sexual partners has long been the dominant pattern of heterosexual transmission.

One of the reasons why HIV spreads from injecting drug users to other populations is the fact that a considerable number of drug users enter into sex work to finance their drug dependence. In fact, among drug users, sex work is often seen as an alternative to criminal behaviour to obtain cash or drugs. It has often been observed that sex workers inject stimulants to be able to cope with the stress of their profession[ab]. Hard data on the problem are scant, but the little available information indicates that there are significant numbers of drug injecting sex workers and sex working injecting drug users[ac] in Eastern and Western Europe, Central Asia, South and South-East Asia and the Americas. For example, a study of street sex workers in an Eastern European country indicated that 24.6% of them were also injecting drug users. Another study examining female injecting drug users in North America found that 70% of them also exchanged sex for money or drugs[ad]. In the same study, 56% of male injectors had also exchanged sex for money or drugs[ae].

Fig. 34: Mixing patters of different subpopulations, Bangladesh



Sources: Government of Bangladesh. Report on the Second Expanded HIV Surveillance, 1999-2000, Bangladesh, Dhaka, GoB/UNAIDS, 2000; Based on data of FHI Bangladesh and the MAP group, 2001

A study carried out in Dhaka, Bangladesh indicates that in a sample of male sex workers, 11% had injected drugs. Among male injecting drug users in the same city who had injected for two years or less, 16 % had exchanged sex for cash or drugs .

Another reason for the diffusion of the virus from injecting drug users to the general population is the fact that injecting drug users are frequently incarcerated. The sharing of injecting equipment and sexual intercourse, mostly between men, is widespread in prison settings of most countries of the world, and the likelihood of being infected with HIV is very high. As a consequence, HIV infection rates in prison settings are generally higher than the national average[af]. After the prisoner's release, the virus is spread via sexual transmission to sexual partners, and via needle sharing to other injecting drug users. There are approximately 10 million people imprisoned across the world at any given time. This is a shifting population, with large numbers of people entering prisons and/or being released. A total figure of about 30 million prisoners worldwide annually is therefore not far fetched. These prison populations constitute a significant risk factor for the diffusion of HIV.

1.3.3 Measures to respond

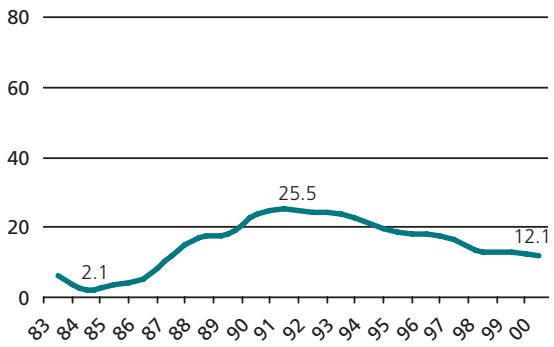
Twenty years of research in various aspects of HIV/AIDS among injecting drug users and the experience from numerous programmes and projects indicate that HIV/AIDS epidemics among injecting drug users can be prevented, stabilized and even reversed. One important lesson learned is that effective responses have to be based on sound assessment of the drug use and

ab) Alegria M, Vera M, Freeman DH et al. HIV infection, risk behaviors, and depressive symptoms among Puerto Rican sex workers. Am J Public Health 1994;84:2000-2
ac) Chaplinskas S & Mårdh P. Characteristics of Vilnius prostitutes. Int J STD & AIDS, 2001, 12:176-180.
ad) Rothenberg R, Long D, Sterk C, Pach A, Potterat J, Muth S, Baldwin J, Trotter R. The Atlanta Urban Networks Study: a blueprint for endemic transmission. AIDS 2000;14:2191-2200.
ae) Government of Bangladesh. Report on the Second Expanded HIV Surveillance, 1999-2000, Bangladesh, Dhaka, GoB/UNAIDS, 2000.
af) Jürgens, R, HIV/AIDS prevention for drug dependent persons within the criminal justice system, Presentation at the Commission on Narcotic Drugs Ministerial Segment: Ancillary Meeting on HIV/AIDS and Drug Abuse, Vienna 2003

HIV situation, and the socio-cultural and political context. Policies governing HIV/AIDS prevention have to adopt pragmatic approaches taking into account that drug dependence is a chronically relapsing condition and therefore provide for addressing high-risk behaviour.

There is some evidence to suggest that the availability and regular use of clean injecting equipment can prevent, halt and perhaps even reverse HIV/AIDS epidemics among injecting drug users. Examples include cities such as Sydney, Glasgow and Toronto. In Brazil, extensive outreach to injecting drug users reduced the percentage of injecting drug users in newly detected HIV infections from a high of 25.5% in 1991 to 12.1% in the year 2000. If clean injecting equipment becomes scarce, as happened for example in Edinburgh in the early 1980s (see the figure on selected cities above), a serious HIV/AIDS epidemic could be provoked[ag].

Fig. 35: Percentage of injecting drug users among newly detected HIV infections in Brazil



Source: UNODC, Country Office Brazil.

Effective programmes could typically include a wide variety of measures ranging from drug dependence treatment, including substitution treatment, outreach to injecting drug users to provide them with information on safer sex and injecting practices, clean needles and syringes, and condoms, voluntary counselling and testing, treatment of sexually transmitted infections, and interventions for special populations-at-risk such as prisoners and sex workers who inject drugs. Such prophylactic measures are desirable, but, as the International Narcotics Control Board has noted, should not promote and/or facilitate drug abus[ah].

Both scientific evidence and the experience with such programmes would seem to indicate that such a package would be effective in reducing the risk of HIV transmission among injecting drug users and the risk of HIV diffusion from drug users to the general population. Over the past two decades effective programmes have moved through a significant paradigm shift, away from waiting for drug users to enter institutional services, to offering services to drug users where they are: in their communities and where they use drugs.

1.4. CONCEPTUAL ADVANCES IN DRUG CONTROL

The preceding sections of this chapter have presented the terms of the difficult equation that must be solved by the international community. On one side, clear policy objectives and a long established consensus on the need to address the drug problem through a multilateral approach has generated one of the most developed systems of international cooperation ever created in the realm of social policy. Decades of experience accumulated by drug control agencies at national, regional and global levels have helped to progressively identify virtually every possible dimension of the drug problem and to evolve an array of corresponding interventions. Drug control programmes now span many domains of traditional public policy, from justice and police, to economics and finance, and to education and health. On the other side of the equation, despite the favourable comparison with the public health disaster created by the largely uncontrolled tobacco industry, it is undeniable that results have so far not been commensurate with the ambitions enshrined in the UN drug conventions and consistently reaffirmed by policy makers and public opinion thereafter.

ag) Brettle RP. Epidemic of AIDS related virus infection among intravenous drug abusers. BMJ 1986;292:1671.
ah) *Report of the International Narcotics Control Board for 2003*, p.36. New York, March 2004

Since the entry into force of the 1961 convention, drug abuse and the criminal ventures that feed it have spread and grown to levels that have kept the problem high on the list of public anxieties. The perception, often voiced, that battle after battle is being lost in the "war on drugs" is certainly a consequence of that situation. The performance of the control system is not commonly judged on the basis of what it might have successfully averted - an epidemic on the scale of nicotine addiction - but rather on what it has so far failed to correct - the persistence and geographical spread of illicit drug production, trafficking and abuse and of their often dramatic consequences. Since the elimination of the problem, as opposed to its mere containment, was always stated as the overarching goal of the drug control system, it is only fair that it be judged on that basis.

Are the objectives of the international drug control system too ambitious? There are fortunately few people who question the basic philosophy that underlies the universally shared commitment of adult generations to protect their younger ones from the tragedy of addiction to dangerous psychoactive substances. The cynical notion that a certain proportion of each generation could acceptably be lost to drug addiction violates the most basic of human ethics. A society free of the drugs that have been declared unsafe by public health experts remains a morally laudable and politically legitimate objective.

More serious, however, have been the criticisms of the efficacy of the methods used to reach that objective. In some cases, those methods have even been accused of exacerbating the problem, or some of its adverse consequences. The fact that some of these critiques have been made by drug control experts and practitioners themselves bears testimony to the readiness of the drug control community to question its own methods of work. More importantly, it shows that drug control proceeds essentially by trial and error. As mistakes are made, and as lessons are learned, new or improved approaches need to be conceived and implemented.

Illicit crop control programmes offer a good illustration of such empirical and pragmatic approaches. Pioneered to a large extent by the United Nations, the concept of 'alternative development' was developed when the limitations of programmes that relied merely on eradication became apparent. After an initial phase of simple crop substitution (replacing the drug crop with a licit one) that proved too narrow, it was expanded to encompass a range of sophisticated socio-economic development measures that included food security, off-farm income generation, education, primary health care, road construction, micro-credit schemes, etc. Improvements were made incrementally over the years, and eventually came to integrate such notions as bottom-up planning and community empowerment. There are countless other examples of such conceptual advances that found practical applications in other sectors of drug control and yielded good results. It is not the objective of this report, however, to list these advances and document their achievements. It is neither the objective of this report to present the dissenting views that have been voiced by the anti-prohibitionist lobby and debated extensively for over a decade. The debates have not changed very much, and UNODC covered them in a previous issue of this report[ai].

One of the objectives of this report is, rather, to propose some new steps towards resolving the drug control equation described above. They are informed by a number of recent developments that have either not yet been fully translated into practice, or are still at the conceptual stage. They conform to the overarching objectives of the international drug control system, as well as offer the prospect of better results. They are suggested below under three categories: a holistic approach; which must become more synergistic; as well as more dynamic. The terms may be familiar, but the approach is not simply a 'more-of-the-same' variety.

1.4.1. A holistic approach

Addressing the drug problem in a broader sustainable development context

Because of its far-reaching socio-economic dimensions, the drug problem has a negative impact on the functioning of societies as a whole. In particular, it can significantly hinder development programmes in poor nations and compromise peacemaking and reconstruction efforts in countries torn by civil war. In turn, situations of poverty, strife and feeble governance are fertile ground for drug production, trafficking and abuse. Those various dimensions can become so interlocked that getting out of the vicious circle they create can only be done through a comprehensive approach. Although

ai) UNDCP, *World Drug Report*, New York, 1997.

this aspect of the drug problem has long been perceived, and documented in a growing body of literature[aj], it is only recently that it started to trigger an attitudinal change among policy makers. Confined for too long to special programmes handled by specialized agencies, drug control priorities are now finding their way into the mainstream of the socio-economic agenda.

Starting at community level, this broader understanding of the socio-economic dimensions of the drug problem must notably be reflected in a society-wide approach. Public institutions cannot do everything. Interventions are far more effective when the state and the economy are joined by the various actors in civil society (such as families, non-governmental organizations, and the media) in a common purpose and programme.

At the international level, interactions and joint ventures between drug control organizations, development agencies and financial institutions are developing. In 2002, UNODC identified the need to "place drugs and crime issues in the context of sustainable development" as one of its six mid-term operational guidelines[ak].

Providing an integrated response to the drugs and crime nexus

It is only logical that this more holistic perception of the drug problem be vigorously applied to the twin sectors of drugs and crime control. The overlaps between the two have become so vast[al] that promoting their integration should not be difficult. Yet historical and institutional reasons, among others, have, in fact, long limited the degree of integration. For instance, the progressive integration of the drug control and crime prevention programmes within a common UN Office only started in 1997. The merger of the two within one internal structure was formally approved in March 2004[am].

Dramatic world events in recent years have certainly contributed to bringing the connections between drug trafficking, organized crime and, to some extent, the financing of terrorism, to the forefront of international attention. The recent enrichment of the multilateral system with a new set of ground-breaking instruments against transnational organized crime, trafficking in human beings, smuggling of migrants, trafficking in firearms and corruption[an] is opening the way for potentially dramatic advances in the fight against drugs and crime.

Addressing the drugs and crime nexus under the new paradigm of human security

Stemming from the 2000 UN Millennium Summit, the seminal work of the Commission on Human Security is advancing a new paradigm of security that will complement the fundamental concepts of human development and human rights[ao]. The notion of 'human security' that encapsulates this new paradigm has the potential to provide a much needed conceptual link between drugs and crime control policies, on the one hand, and sustainable development policies, on the other hand. The final report of the Commission, released in 2003, stresses the need to address international crime, illegal trade in arms, drugs, natural resources and people as part of a holistic human security agenda.

"Human security focuses on the protection of people, not borders and territories. The added value of human security is its focus on a broader range of violent threats facing people, including war and internal conflict, but also communal conflict and serious criminality. It also broadens understanding of the causes of violent conflict by emphasizing the links with poverty, the inequalities among communities and the impact of sudden downturns and risks. To protect and empower people in conflict, a broad range of interconnected policies is required […]"[ap].

aj) See for instance: Barnett R. Rubin, *The Political Economy of War and Peace in Afghanistan*, [http://institute-for-afghan-studies.org/ECONOMY/political_economy_of_war_peace.htm], June 1999; World Bank, P. Collier and A. Hoeffler, *The Economics of Civil War, Crime and Violence*, [http://econ.worldbank.org/files/12205_greedgrievance_23oct.pdf], October 2001; UNODC, *The Opium Economy in Afghanistan, An International Problem*, New York, 2003; INCB, *Report 2002*, chapter 1, New York, 2003.

ak) Commitment to Good Governance. Progress Report on Management Reform by the Executive Director (April 2002 - April 2003). UNODC/ED/1, 8 April 2003.

al) Report of the International Narcotics Control Board for 2003, Chapter 1, New York, March 2004

am) United Nations Secretariat, Secretary General's Bulletin, ST/SGB/2004/6, March 2004.

an) United Nations Convention against Transnational Organized Crime (General Assembly Resolution 55/25, annex I). The Convention entered into force on 29 September 2003, along with its Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children (General Assembly Resolution 55/25, annex II). The Protocol against the Smuggling of Migrants by Land, Air and Sea (General Assembly Resolution 55/25, annex III) entered into force on 28 January 2004. The Protocol against the Illicit Manufacturing of and Trafficking in Firearms, Their Parts and Components and Ammunition has not yet entered into force. The United Nations Convention Against Corruption was adopted by the General Assembly by Resolution 58/4 of 31 October 2003.

ao) Commission on Human Security, *Human Security Now*, New York, 2003.

ap) *Ibid,* p. 33.

1.4.2. A more synergetic approach

While much is awaited from the mainstreaming of the drug control agenda within broader conceptual and political frameworks, an ongoing regeneration of drug control strategies *per se* is also expected to improve their efficacy in the coming years.

The United Nations General Assembly Special Session on Drugs in its June 1998 Political Declaration clearly stated the importance of implementing an integrated and balanced approach as part of a reinvigorated strategy that included time-bound and measurable targets, as well as a set of action plans. Meeting in early 2003 to review the status of implementation of the actions plans, governments identified the need for "a comprehensive strategy that combines alternative development […] eradication, interdiction, law enforcement, prevention, treatment and rehabilitation as well as education[aq]." They also called for the further development of evidence-based approaches and of data collection, analysis and evaluation tools to support them[ar].

While these statements might sound familiar, they do, in fact, highlight one of the most difficult intellectual challenges that the drug control community must now face. As pointed out in other sections of this report, there remain huge *terras incognitas* in drug-related data and statistics. There is also surprisingly little that is known about the structure and dynamics of drug markets at national, regional and global levels. There is a pressing need to fill that knowledge gap. This is not just for the greater good of science but because, unless a far more synergetic approach is adopted to conceive drug control strategies and to implement the vast array of interventions they encompass, there is a real fear that governments will, year after year, have to repeat the distressing statement that "drug abuse remains at an unacceptably high level[as]."

The example of Afghanistan is illustrative. The size of the drug production and trafficking problem has reached massive proportions in that country. Its tremendous national and international consequences have moved it to the top of the national and international political agenda. Two years ago, the devastation of the country by decades of civil war left policy makers with a drug control apparatus that amounted to a blank sheet of paper. The firm and courageous position of the new regime on that issue was matched by the readiness of the donor community to provide expertise, technical assistance and financial resources. A national drug control strategy was soon developed. It contained all the classic elements of a sound drug control programme (legislation, law enforcement, alternative development, demand reduction, monitoring, etc.). Yet, leaving aside the fundamental question of security and governance, drug control experts have been facing formidable difficulties in translating the strategy into effective interventions tailored to the situation at hand. In the light of what was noted above, one possible explanation could be that (a) planned interventions have remained essentially compartmentalized into the traditional sectors, without a prescription to dose, integrate and sequence their implementation; and (b) that the strategy has not been conceived on the scale of the transnational market, of which Afghanistan is only a segment. To this day, despite the fact that the inter-linked elements of the international Afghan heroin market span an entire continent, there is no multilateral operational strategy to tackle them all in a coordinated and synergetic manner.

A number of analysts have pointed out the need to remedy the deficiency of approaches that are too sectorially and geographically compartmentalized. Changing this requires that more efforts be made to improve drug related data collection and analysis. It also requires decision makers to support a vigorous research programme on the way drug markets are structured, operate and evolve.

Illicit drugs are commodities. Produced, transformed, transported, distributed, purchased and consumed, they are at the centre of lucrative clandestine, and to a very large extent, transnational markets. Albeit illegal, these markets, like any other market, obey a number of basic supply and demand rules and respond to internal and external stimuli and pressures. Understanding the rules will help to better conceive the kind of pressures that could break these markets[at].

aq) Joint Ministerial Statement and further measures to implement the action plans emanating from the twentieth special session of the General Assembly, 16 April 2003. E/2003/28/Rev.1. E/CN.7/2003/19/Rev.1, p.2.

ar) *Ibid.*, p.4.

as) *Ibid.*

at) R. Anthony and A. Fries, "Farmgate-to-Street Model of Narcotics Trafficking", in proceedings of the Expert Group on Technical Challenges to the Drug Community, UNODC and US ONDCP, Vienna, 2003. A revised version of this paper will be published in a forthcoming issue of United Nations, *Bulletin on Narcotics*; The RAND Drug Policy Research Center has also been working on models of various dimensions of the drug problem [http://www.rand.org/multi/dprc/projects/model.html]. An ongoing project (P. Reuter and V. Greenfield, "Examining the consequences of reducing Afghanistan's heroin production") focuses on the development of a simulation model of the global trade in Afghan heroin.

1.4.3. A more dynamic approach

Though drugs are commodities, their abuse diffuses into susceptible segments of the population like an infectious disease. The term 'drug epidemics' thus offers a useful analogy. The powerful dynamics created by the combination of the incentives and behavior of a ruthless market with the contagion characteristics of an epidemic explain why drug abuse can expand so rapidly and become so difficult to stem. Since young people are particularly vulnerable, it is important to monitor closely the prevalence, incidence and evolution of illicit drug use among them[au].

Analysis of, and responses to, the drug problem have so far been too static and treated the phenomenon as essentially linear. Fine-tuning and sequencing drug control interventions to maximize their effectiveness would require the development of dynamic, non-linear models of the drug problem[av]. Understanding how drug epidemics start, spread, reach a plateau and then decline, and how feedback effects can alter their evolution, would help to decide at which moment of the process what type of intervention, or mix of interventions, are most likely to be effective. It would also provide guidelines on how to allocate resources among the various sectorial interventions at any given time. For instance, a certain type of intervention (say, law enforcement) might be more effective than another one (say, prevention or treatment) at certain stages of the epidemic, and less at others. Since drug control budgets are finite, shifting the share of resources among the different categories over time could significantly increase the cost-effectiveness of drug control strategies.

Research on, and interest in, the development of more dynamic models of the drug problem have increased in the last decade or so - essentially in North America and Europe. A few years ago, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) launched a research project on the use of modelling in drug epidemiology[aw] and the European Commission supported the establishment of a European Network to promote research on mathematical and statistical models[ax]. UNODC and the Technical University of Vienna organized a symposium on the subject in 2000[ay]. As part of an increasing knowledge-based approach to drug control policy, these efforts should be further encouraged and expanded with a view to produce and validate models that would assist policy makers in launching innovative and cost-effective drug control programmes.

au) School surveys offer valuable sources of information in that respect. In recent years, a limited number of countries have also been promoting the use of random drug testing among pupils, as part of their drug abuse prevention policies in schools.
av) J.P. Caulkins, "The dynamic character of drug problems", United Nations, *Bulletin on Narcotics*, Vol. LIII, Nos. 1 and 2, 2001, New York, 2001.
aw) EMCDDA, Modelling drug use: methods to quantify and understand hidden processes, in EMCDDA Scientific Monographs, Lisbon, April 2001.
ax) EMCDDA, European Network to Develop Policy Relevant Models and Socio-Economic Analysis of Drug Use, Consequences and Interventions, Final Report, Lisbon, January 2002.
ay) UNDCP, Dynamic drug policy: Understanding and controlling drug epidemics, in *Bulletin on Narcotics*, Vol. LIII, Nos. 1 and 2, 2001, New York, 2001.

2. TRENDS

2.1. Opium / Heroin market

2.1.1. Production

In 2003, opium poppy cultivation fell slightly…

At the global level, illicit opium poppy cultivation amounted to an estimated 169,000 ha in 2003, a six per cent decline compared to 2002. Opium poppy cultivation is now 40% less than it was in the early nineties, when it stood at approximately 270,000 ha. However, the distribution of cultivation has changed over the past decade, with a decline in the low opium yield areas of south-eastern Asia and an increase in the high opium yield areas of Afghanistan.

In 2003, more than 90% of the illicit cultivation of opium poppy still took place in three countries: Afghanistan, Myanmar and Laos. Compared to 2002, there was an overall decline of 9% in opium poppy cultivation in these countries due to decreases in Myanmar (-24%) and Laos (- 14%). The declines were attributed to the Governments' efforts to reduce opium poppy cultivation, notably through raising farmers' awareness of the illicit status of the crop, promoting alternative livelihood and conducting eradication, on a voluntary basis, in Laos. In contrast, between 2002 and 2003, opium poppy cultivation increased again in Afghanistan (+8%) to reach 80,000 ha.

… but opium production increased

The increase in cultivation in Afghanistan, combined with the higher opium yield (45 kg/ha) than in South-East Asia (13 kg/ha), resulted in an overall increase of 5% of global illicit opium production between 2002 and 2003. In 2003, the 3,600 metric tons of opium produced in Afghanistan, the second highest opium production estimate in Afghanistan's history, provided more than three-quarters of the illicit opium supply of the world.

Since 1995, opium poppy cultivation in Pakistan had remained below 1,000 ha, even averaging a low as 250 ha from 1999 to 2001. In 2003, however, the Government of Pakistan reported a total of 2,500 ha of opium poppy cultivation, following the eradication of 4,200 ha. The increase might be due to several factors, including high opium prices and farmers hoping to replicate the apparent prosperity reported among neighbouring Afghan opium farmers.

While heroin originating from South-West Asia predominantly supplies neighbouring countries, Central Asia and Europe, the heroin market in the United States is mainly supplied by opium harvested in Colombia and Mexico. Although eradication of opium fields took place in both countries, the annual trend (2002-2003) of the net amount of opium poppy harvested is undetermined. The particular conditions of the growth of opium poppy in these two countries – unsystematic crop calendar, inaccessible areas, plus significant cloud cover in Colombia – make the monitoring of the crop very difficult. Consequently, the establishment of robust estimates for this part of the world continues to be challenging.

Unlike coca cultivation, which is limited to a few countries in the Andean region, opium poppy is grown in many parts of the world. Low levels of illicit cultivation exist in many regions and countries such as Viet Nam, Russia, Ukraine, Central Asia, Caucasus region, Egypt, Peru and Thailand. The latter, an important centre of illicit opium poppy cultivation in the sixties, has become a negligible source of opium in recent years, declining even further in 2003.

Although the figure should be taken with caution due to the paucity of data, the potential farmgate value of opium production in 2003 at the global level is estimated at about US$1.2 billion. More than 85% of this sum was made in Afghanistan.

Heroin prices increase slightly…

Heroin prices, expressed in US-dollars, have shown some minor increases in the USA and in Western Europe since 2002. Paradoxically, the slight increase in heroin prices ran parallel to an increase in heroin supply. In Europe the increase in prices in US dollar terms masked a decrease in prices in Euro terms following the strengthening of the Euro against the dollar. More oddly, both in the USA and Europe, heroin purity seemed to be on the rise in 2003 though data for this year, especially for Europe, remains incomplete. Should the increase in heroin purity be confirmed, it would mean that the heroin market reacted to the increase in heroin supply by marketing a higher quality, more potent type of heroin at slightly higher prices.

Outlook for 2004: further increase to be expected…

The amount of opium poppy cultivation in Afghanistan in 2004 will continue determining the level of the world's supply of illicit opium and heroin. The results of the Afghan farmers' intention survey conducted by UNODC and the Afghan Government in October 2003, at the time of planting for the 2004 opium poppy season, indicated that 69% of the opium farmers interviewed intended to increase their level of opium poppy cultivation in 2004. Only 4% stated an intention to decrease. The latest evidence received from Afghanistan in February 2004, and anecdotal evidence from UN mission to poppy growing areas received in March and April 2004, seems to confirm that the farmers did actually plant poppy on a large scale in 2004, to an extent which would exceed cultivation levels in 2003.

OPIUM

Table 1. GLOBAL ILLICIT CULTIVATION OF OPIUM POPPY AND PRODUCTION OF OPIUM, 1990-2003

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
CULTIVATION[1] IN HECTARES														
SOUTH-WEST ASIA														
Afghanistan	41,300	50,800	49,300	58,300	71,470	53,759	56,824	58,416	63,674	90,583	82,171	7,606	74,100	80,000
Pakistan	7,488	7,962	9,493	7,329	5,759	5,091	873	874	950	284	260	213	622	2,500
Subtotal	48,788	58,762	58,793	65,629	77,229	58,850	57,697	59,290	64,624	90,867	82,431	7,819	74,722	82,500
SOUTH-EAST ASIA														
Lao PDR	30,580	29,625	19,190	26,040	18,520	19,650	21,601	24,082	26,837	22,543	19,052	17,255	14,000	12,000
Myanmar	150,100	160,000	153,700	165,800	146,600	154,070	163,000	155,150	130,300	89,500	108,700	105,000	81,400	62,200
Thailand [2]	1,782	3,727	3,016	998	478	168	368	352	716	702	890	820	750	
Viet Nam [2]	18,000	17,000	12,199	4,268	3,066	1,880	1,743	340	442	442				
Subtotal	200,462	210,352	188,105	197,106	168,664	175,768	186,712	179,924	158,295	113,187	128,642	123,075	96,150	74,200
LATIN AMERICA														
Colombia [3]		1,160	6,578	5,008	15,091	5,226	4,916	6,584	7,350	6,500	6,500	4,300	4,100	4,100
Mexico [4]	5,450	3,765	3,310	3,960	5,795	5,050	5,100	4,000	5,500	3,600	1,900	4,400	2,700	4,800
Subtotal	5,450	4,925	9,888	8,968	20,886	10,276	10,016	10,584	12,850	10,100	8,400	8,700	6,800	8,900
OTHER														
Combined [5]	8,054	7,521	2,900	5,704	5,700	5,025	3,190	2,050	2,050	2,050	2,479	2,500	2,500	3,000
GRAND TOTAL	**262,754**	**281,560**	**259,686**	**277,407**	**272,479**	**249,919**	**257,615**	**251,848**	**237,819**	**216,204**	**221,952**	**142,094**	**180,172**	**168,600**
POTENTIAL PRODUCTION IN METRIC TONS														
OPIUM														
SOUTH-WEST ASIA														
Afghanistan	1,570	1,980	1,970	2,330	3,416	2,335	2,248	2,804	2,693	4,565	3,276	185	3,400	3,600
Pakistan	150	160	181	161	128	112	24	24	26	9	8	5	5	52
Subtotal	1,720	2,140	2,151	2,491	3,544	2,447	2,272	2,828	2,719	4,574	3,284	190	3,405	3,652
SOUTH-EAST ASIA														
Lao PDR	202	196	127	169	120	128	140	147	124	124	167	134	112	120
Myanmar	1,621	1,728	1,660	1,791	1,583	1,664	1,760	1,676	1,303	895	1,087	1,097	828	810
Thailand [2]	20	23	14	17	3	2	5	4	8	8	6	6	9	
Viet Nam [2]	90	85	61	21	15	9	9	2	2	2				
Subtotal	1,933	2,032	1,862	1,998	1,721	1,803	1,914	1,829	1,437	1,029	1,260	1,237	949	930
LATIN AMERICA														
Colombia [3]		16	90	68	205	71	67	90	100	88	88	58	50	50
Mexico	62	41	40	49	60	53	54	46	60	43	21	71	47	84
Subtotal	62	57	130	117	265	124	121	136	160	131	109	129	97	134
OTHER														
Combined [5]	45	45	-	4	90	78	48	30	30	30	38	40	40	50
GRAND TOTAL	**3,760**	**4,274**	**4,143**	**4,610**	**5,620**	**4,452**	**4,355**	**4,823**	**4,346**	**5,764**	**4,691**	**1,596**	**4,491**	**4,765**
HEROIN														
Potential HEROIN	**376**	**427**	**414**	**461**	**562**	**445**	**436**	**482**	**435**	**576**	**469**	**160**	**449**	**477**

(1) Potentially harvestable, after eradication.
(2) Due to low levels of production, cultivation and production for Viet Nam as of 2000 and for Thailand as of 2003 were included in the category "Other countries".
(3) According to the Government of Colombia, cultivation covered 7,350 ha and 6,500 ha and production amounted to 73 mt and 65 mt in 1998 and 1999 respectively.
(4) Sources: As its survey system is under development, the Govt of Mexico indicates it can neither provide cultivation estimates nor endorse those published by UNODC which are derived from US Government surveys.
(5) Includes countries such as Russia, Ukraine, Central Asia, Caucasus region, Egypt, Peru, Viet Nam (as of 2000) and Thailand (as of 2003)

Fig. 1: GLOBAL OPIUM POPPY CULTIVATION 1990-2003 (ha)

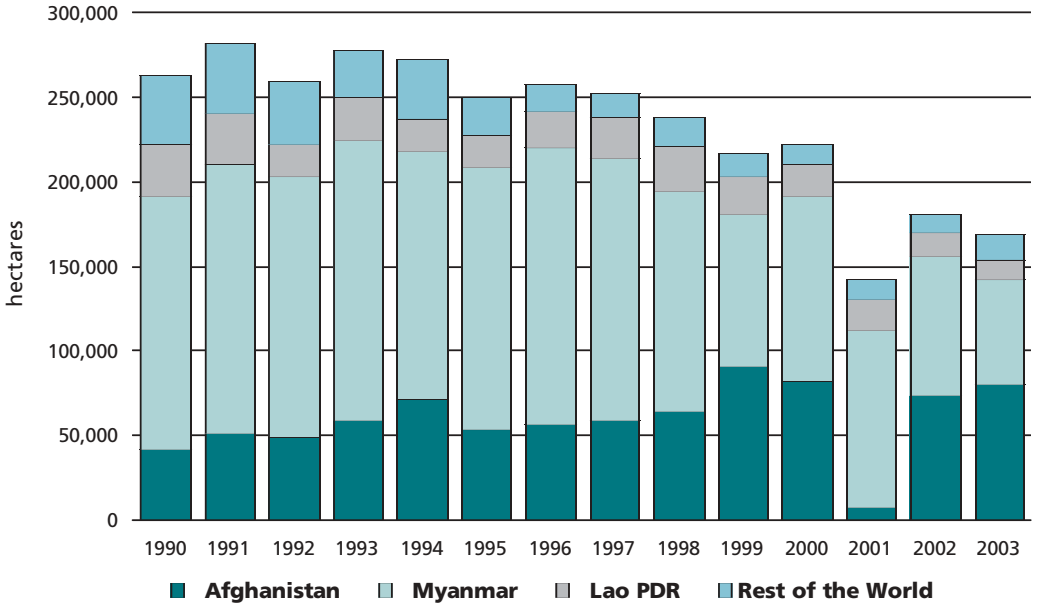
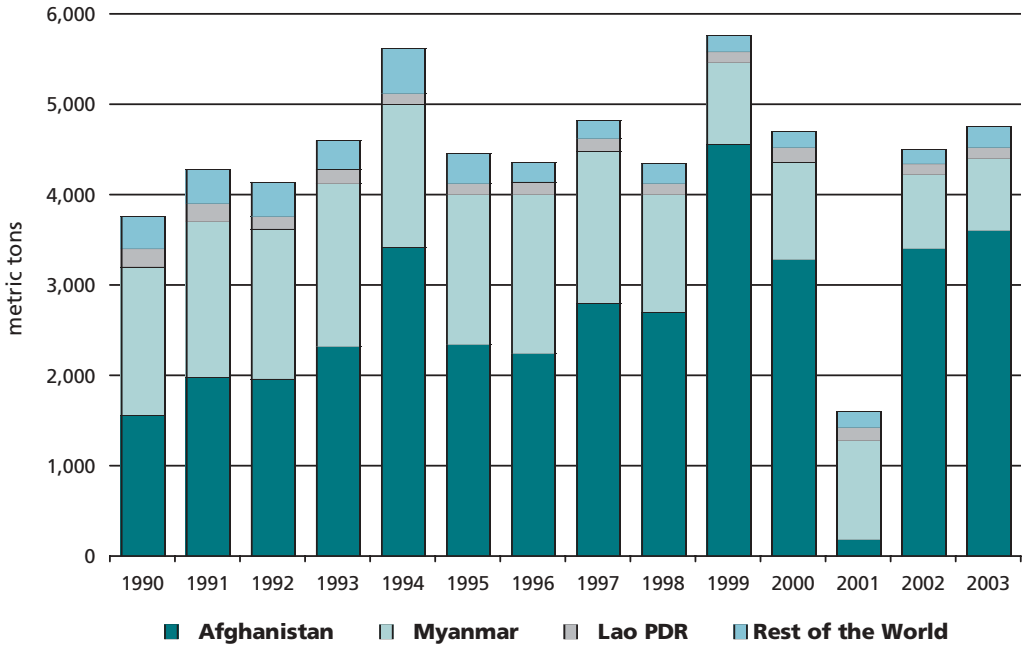


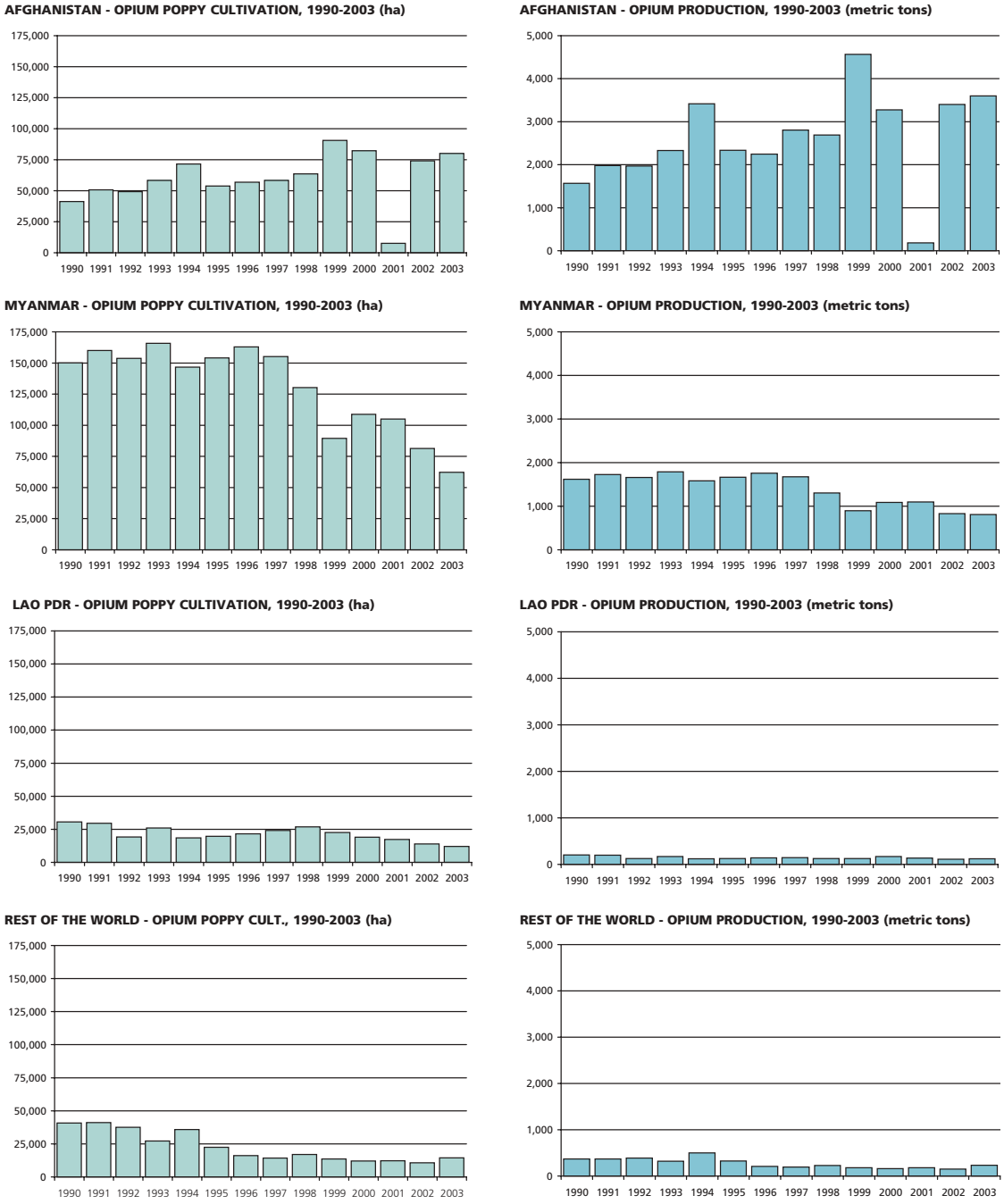
Fig. 2: GLOBAL OPIUM PRODUCTION 1990-2003 (metric tons)



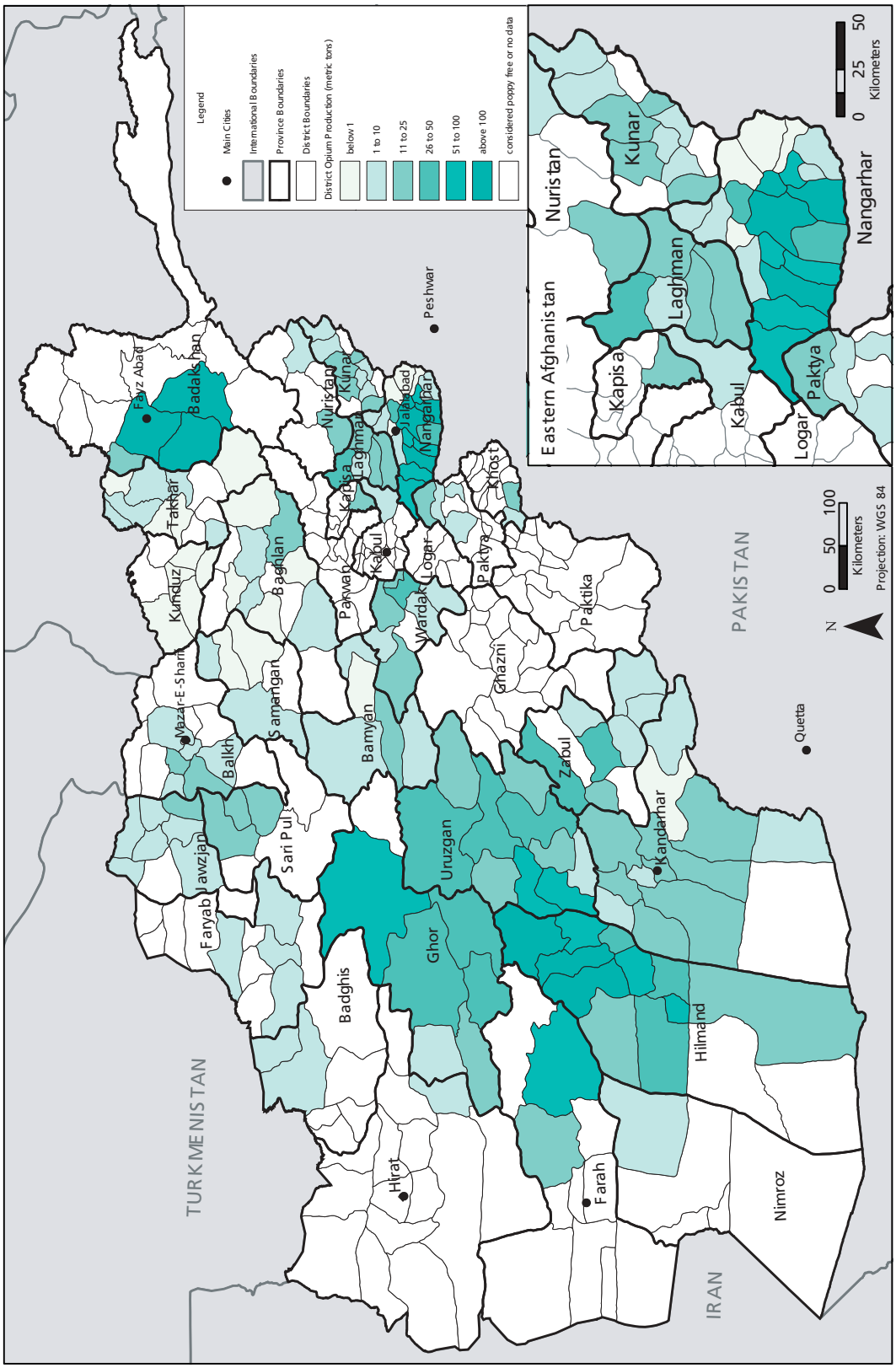
Map 1. Opium poppy cultivation (2002 - 2003)

Map 2. Opium production (2002 - 2003)

Fig. 3.
Annual opium poppy cultivation and opium production in main producing countries, 1990 - 2003

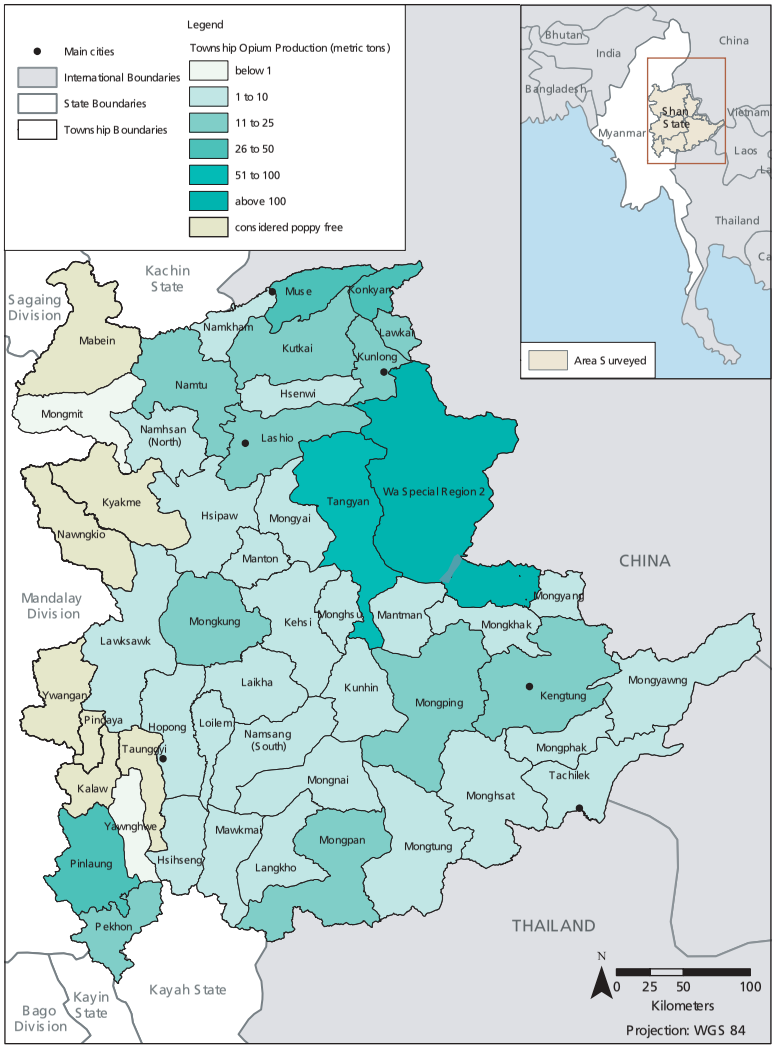


Map 3. Afghanistan, Opium production in 2003



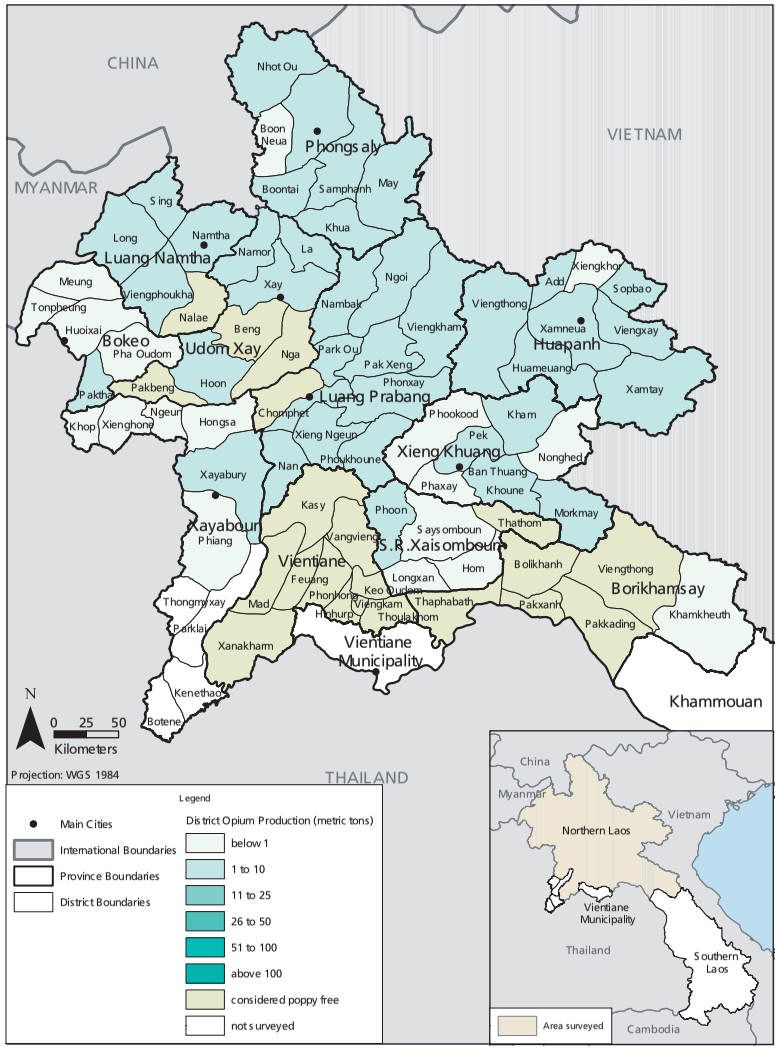
Source: CND - UNODC Afghanistan Opium Survey 2003 (http://www.unodc.org/unodc/en/crop_monitoring.html)

Map 4. Myanmar Shan State, opium production 2003



Source: CCDAC - UNODC Myanmar Opium Survey 2003
(http://www.unodc.org/unodc/en/crop_monitoring.html)

Map 5. Northern Laos, opium production 2003



Source: LCDC - UNODC Laos Opium Survey 2003
(http://www.unodc.org/unodc/en/crop_monitoring.html)

Fig. 4: Opium Poppy Cultivation

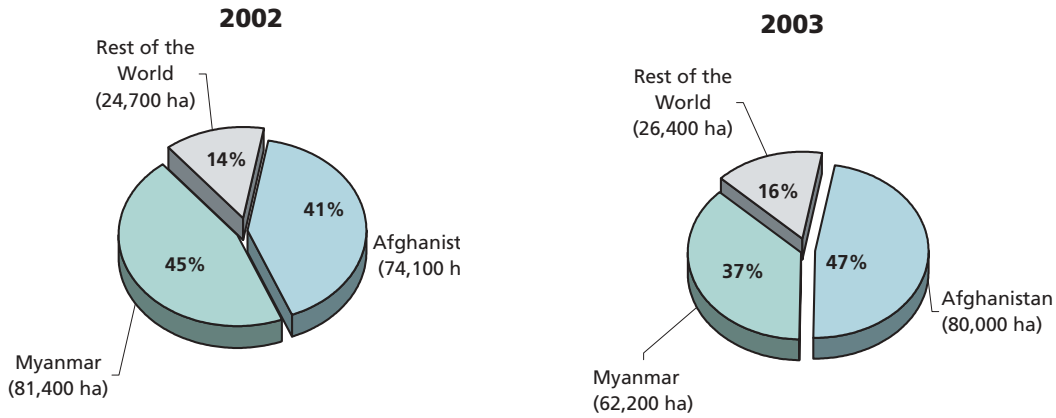
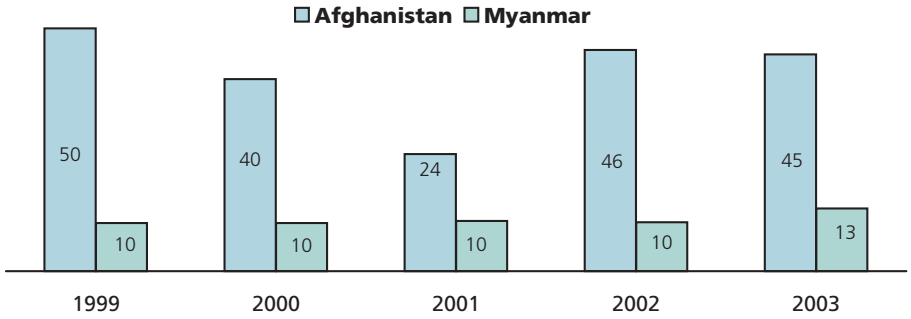


Fig. 5: Opium Yields in Afghanistan and Myanmar (kg / ha)



Differences in opium yield between Afghanistan and Myanmar are due to differences in opium poppy varieties and growing conditions. Variations of yields from year to year in the same country are mostly caused by changes in weather conditions and/or, as in the case of Afghanistan in 2001, by a shift in the relative distribution of cultivation from irrigated to rain-fed land.

Fig. 6: Opium Production

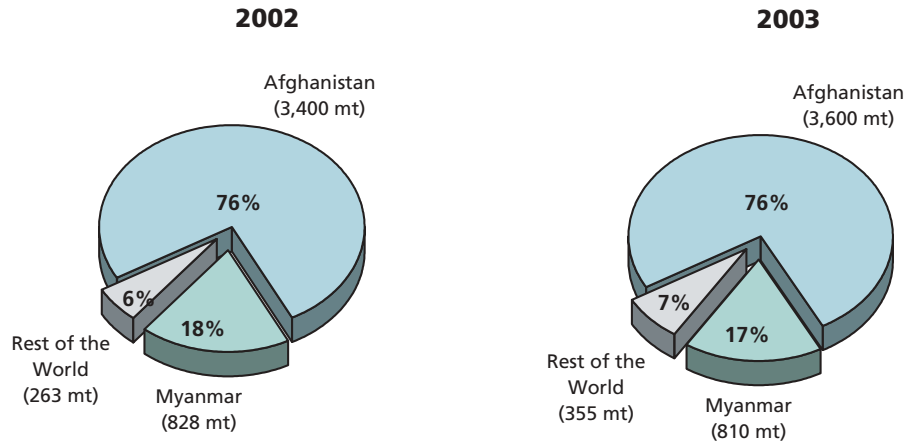


Table 2. Potential farmgate value of opium, 2003

	Farmgate price US$ per kg	Production metric tons	Potential value (million of US$)
Myanmar	130	810	105
Afghanistan	283	3,600	1,019
Lao, PDR	160 (1)	120	19
Colombia	194	50	10
Mexico	194 (2)	84	16
Other (4)	251 (3)	102	25
Total opium		4,765	1,195

(1) Based on 2002 opium prices. 2003 opium prices will be available in June 2004

(2) Farmgate price not available: value based on price in Colombia

(3) Average price based on the total value and production from the five countries listed above.

(4) Includes Pakistan.

Fig. 7: Potential farmgate value of opium, 2003 (million of US$)

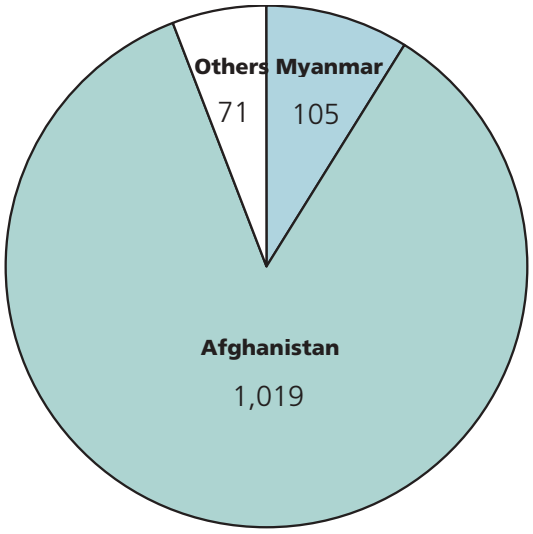
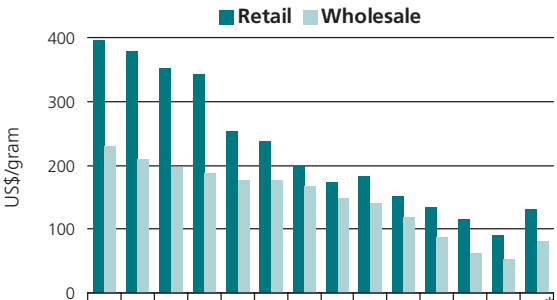
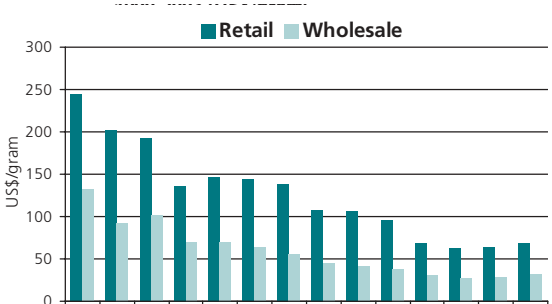


Fig. 8: USA: heroin retail and wholesale prices, 1990-2003 (US$/gram)



	90	91	92	93	94	95	96	97	98	99	00	01	02	03*
Retail	396	377	351	341	253	236	200	173	183	151	135	114	90	130
Wholesale	229	210	197	186	177	176	166	148	141	118	87	62	52	80

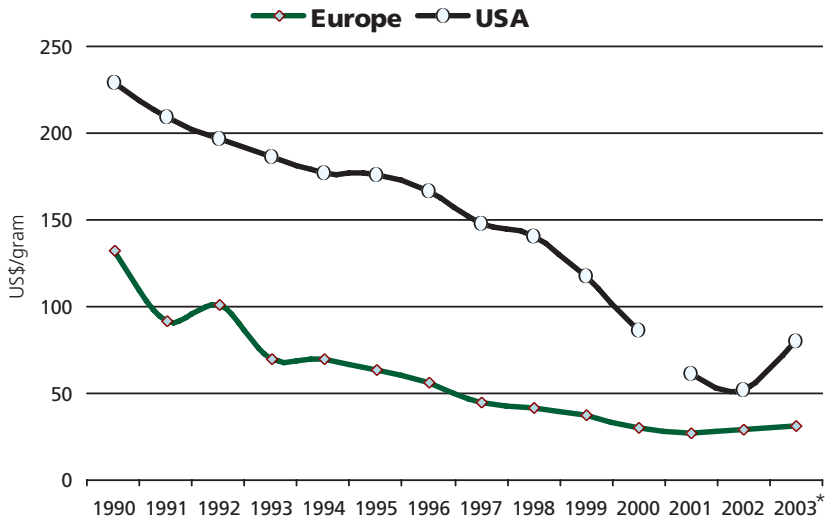
Fig. 9: EUROPE: heroin retail and wholesale prices, 1990-2003 (US$/gram)



	90	91	92	93	94	95	96	97	98	99	00	01	02	03
Retail	244	202	192	136	147	144	138	107	106	96	68	61	64	68
Wholesale	132	92	101	70	70	63	56	45	41	38	30	27	29	32

* premilinary data for 2003.
Note: Retail and wholesale prices are not directly comparable because purity levels differ.

Fig. 10: Wholesale heroin prices in Europe and the USA, 1990-2003 (US$/gm, at street purity)



* preliminary data for 2003

Table 3. Reported opium poppy eradication, in ha, 1993 - 2003

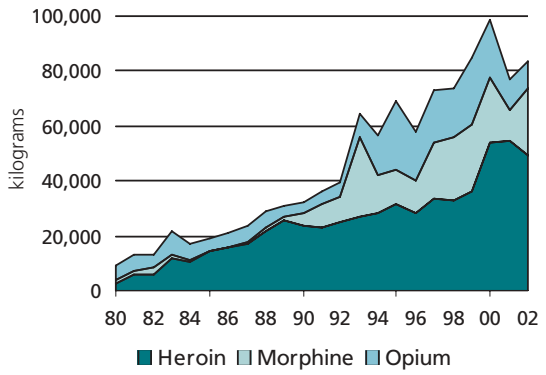
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Afghanistan							400	121			21,430
Colombia	9,400	5,314	5,074	7,412	7,333	3,077	8,434	9,279	2,583	3,371	2,994
Lao PDR											4,134
Mexico	13,015	10,959	15,389	14,671	17,732	17,449	15,461	15,717	15,350	19,157	n.a.
Myanmar	160	1,041	3,310	1,938	3,093	3,172	9,824	1,643	9,317	7,469	638
Pakistan	856	463		867	654	2,194	1,197	1,704	1,484	n.a.	4,185
Thailand	1,706	1,313	580	886	1,053	716	808	757	832	507	767
Vietnam		672	477	1,142	340	439		426			n.a.

2.1.2. Trafficking

After a decline in 2001, seizures increased again in 2002…

Global seizures of opiates (heroin, morphine and opium, expressed in heroin equivalents[a]) increased by 9% in 2002 after having fallen by 22% in 2001. The increase was a consequence of the doubling of morphine seizures, reflecting the resumption of large-scale opium poppy cultivation and processing in Afghanistan in 2002. Heroin seizures, in contrast, declined by 10%, probably because the large stocks built up from the bumper harvests of 1999 and 2000 were beginning to deplete. Preliminary data for 2003 suggest, however, that heroin trafficking regained momentum with another large opium poppy harvest in Afghanistan.

Fig. 11: Seizures of opiates (in heroin equivalents), 1980-2002



Source: UNODC, Annual Reports questionnaire Data/DELTA.

… remaining concentrated in Asia, particularly South-West Asia…

In 2002, 65% of all opiate seizures were made in Asia, 28% in Europe and 6% in the Americas. Most of the world's opiates are seized in Asia, because it contains the two largest production areas. South-West Asia is the larger of the two. Afghanistan's neighbours, Iran and Pakistan, thus had the largest opiate seizures in 2002, with Iran accounting for 25% and Pakistan for 16% of the world total. South-West Asia as a whole accounted for 43% of global opiate seizures in 2002. If the countries of Central Asia are added, 49% of global seizures took place in these sub-regions.

Opiate seizures in South-West Asia rose by 18% in 2002, reflecting the resumption of large-scale opium poppy cultivation -- primarily in Southern and Eastern Afghanistan[b]. Opiate seizures in Central Asia remained stable in 2002. However, as compared to the year 2000 (the year prior to the poppy ban in Afghanistan), opiate seizures were 24% higher in Central Asia and 36% lower in South-West Asia. This suggests that the previous trafficking patterns were not fully re-established in 2002. In other words, traffickers who had switched to the Central Asia route did not switch back to the traditional route through Pakistan or Iran.

If heroin is considered by itself, Central Asia accounted for about a third of all seizures made in the countries surrounding Afghanistan. This proportion was twice as high in 2002 as in 2000, indicating greater use of the Central Asian trafficking route in recent years. There is also evidence that much of the opiates smuggled through Central Asia are in the form of heroin while more of the exports through Pakistan and Iran are still in the form of opium and morphine. This is consistent with reports of several dozen clandestine heroin laboratories in Afghanistan, concentrated in the eastern and north-eastern parts of the country, often close to the border. In South-West Asia heroin constitutes about a third of the opiates seized; in Central Asia the proportion was as high as 94% in 2002. In Tajikistan, which accounted for 78% of all the heroin seized in Central Asia in 2002, heroin seizures rose by 80% in the first 10 months of 2003.

… and to a lesser degree in South-East Asia…

The second Asian production area is South-East Asia, where 14% of the world's opiates were seized in 2002. This proportion declined, however, by 23% in 2002,

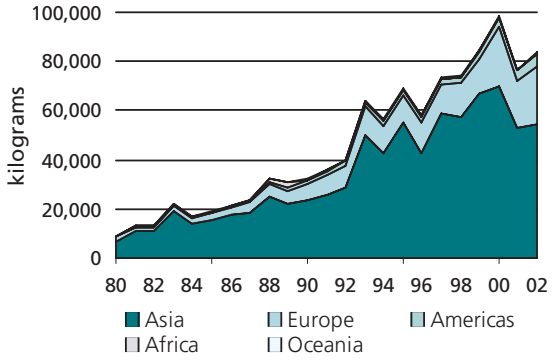
a) For the purposes of this calculation it is assumed that 10 kg opium are equivalent to 1kg morphine or 1 kg of heroin.

b) The Taliban ban on opium cultivation in 2001 was very effective in the south and east of Afghanistan. It did not apply to large sections of the main opium producing districts of Northern Afghanistan because they were outside Taliban control. As a consequence, the 2002 increases in opium production were - for obvious reasons - higher in the south and east than in the north.

reflecting the ongoing reduction of opium production in Myanmar and the Lao PDR. (Opium production in the Golden Triangle also fell by 23% in 2002). Opiate seizures in South-East Asia[c] were 29% of the opiate seizures in Central and South-West Asia in 2002. Similarly, opium production estimates for South-East Asia for 2002 were equivalent to about 28% of those for South-West Asia. The interception rates (see below) in these sub-regions are therefore similar: 11% in Central & South-West Asia and 12.5% in South-East Asia in 2002.

Reports of dismantled heroin laboratories over the 2000-2002 period were received from Myanmar, Hong Kong SAR of China, India and Malaysia. Some seizures of heroin in Taiwan Province of China (2002) and Australia (2003), which did not have the same profiles as heroin from South-East Asia or South-West Asia, raised concerns that there may be some heroin manufacture in the Democratic People's Republic of Korea (North Korea).

Fig. 12: Seizures of opiates (in heroin equivalents), 1980-2002



Source: UNODC, Annual Reports questionnaire Data/DELTA.

… as well as in Europe

Europe accounted for 28% of global opiate seizures in 2002. Some 90% of the opiates destined for European markets are estimated to come from Afghanistan. The bulk of the large and rapidly growing C.I.S. market is supplied by opiates transiting the Central Asian countries. Most of the heroin destined for West Europe still seems to move along the Balkan route. Turkey remains a principal transshipment location.

Thus far, significant proportions of opiates coming through Central Asia have only been reported for some of the Nordic countries, notably Finland. St. Petersburg and the Baltic countries seem to be important transshipment points for these activities. Minor quantities are trafficked via Russia and Belarus to Poland for shipment to Germany. A small proportion of the heroin found on the German market is shipped directly from Central Asia to Germany.

Opiate seizures rose by almost 20% in Europe in 2002 and were back to the levels reported in 2000. The increase was essentially due to a strong increase of morphine seizures in Turkey, which reported the third largest opiate seizures worldwide in 2002. The Turkish authorities continued to dismantle heroin laboratories, particularly in eastern parts of the country. Much of the heroin wholesale trade in Western Europe is still reported to be controlled by Turkish/Kurdish groups, though in recent years Albanian groups (originating in Kosovo, in the F.Y.R. of Macedonia and in Albania) appear to have obtained significant market share in a number of countries. In the northern parts of England, the heroin business seems to be controlled by groups of Asian origin, and supplied directly from Pakistan. In the southern parts of the UK, the heroin wholesale trade continues to be controlled by mainly Turkish groups. The retail sale of heroin in Europe, in contrast, is rarely controlled by Turkish groups.

Excluding data from Turkey, opiate seizures in Europe fell by 10% in 2002 and were 16% lower than in the year 2000. Heroin seizures fell by 16% in 2002. If the decline in seizures had been a result of reduced enforcement, supply would have increased and heroin prices would have fallen. This was not the case. Heroin prices remained stable in 2002, suggesting that the lower seizures were a result of less trafficking. Since there appears to be a time lag of 6 to 18 months between production of the opium and arrival of the heroin on the European market, much of this decline in 2002 is likely to have been a consequence of the strong reduction of opium production in Afghanistan in 2001.

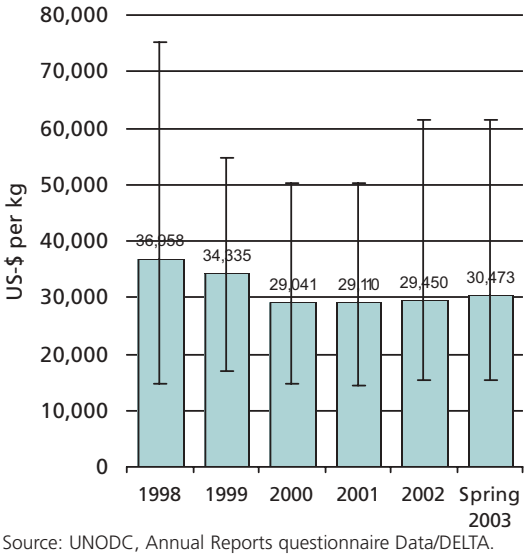
The resumption of poppy cultivation in Afghanistan in 2002, a large harvest in 2003, and indications of further expansion in 2004, all make it likely that the trafficking towards Europe will increase again. Germany, for instance, already reported an increase in heroin seizures

c) including China.

of 42% over the first two quarters of 2003 as compared to a year earlier. Similarly, heroin seizures in Turkey rose by more than 70% over the first three quarters of 2003 as compared to a year earlier.

There are no indications that prices reacted in any significant way to rising seizures in 2003. Heroin wholesale prices, expressed in US dollars, remained largely stable in Western Europe in 2003, though they fell in Euro-terms. Indications of rising seizures and stable/declining prices suggest that the trafficking of opiates to Western Europe is likely to have increased again in 2003 and a further rise can be expected for 2004 as well.

Fig. 13: Heroin wholesale prices in the European Union (EU-15) *(unweighted average | min. and max. prices)*

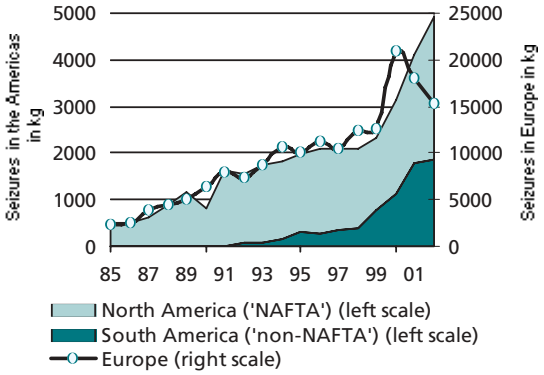


Source: UNODC, Annual Reports questionnaire Data/DELTA.

Opiate seizures in the Americas are smaller than in Europe but are growing rapidly

Less opiate trafficking takes place in the Americas than in Europe. Seizures in the Americas accounted for 6% of global opiate seizures in 2002. For most of the 1980s and the 1990s, seizure trends in Europe and the Americas paralleld each other with American heroin seizures amounting to about a fifth of the European ones. In recent years, however, the trends have diverged. In 2002, American seizures rose to about a third of European seizures. In contrast to Europe, where heroin seizures fell by 27% between 2000 and 2002, they increased in the Americas by 30% in 2001 and 20% in 2002. Between 2000 and 2002, heroin seizures in North America rose by more than 50%, and in South America[d] by more than 60%. Increasing seizures probably reflected both better enforcement because the volume of trafficking seems to have increased. This would be consistent with reports that heroin use has increased in the USA since the mid-1990s[e].

Fig. 14: Heroin seizures in the Americas and in Europe, 1985-2002



Source: UNODC, Annual Reports questionnaire Data/DELTA.

US authorities estimated that close to 60% of the heroin they seized originated in Colombia and 30% in Mexico in 2002. (Colombia and Mexico were also the only countries in the Americas reporting the dismantling of clandestine heroin laboratories in recent years). For the first time, US authorities mentioned Venezuela as a potential source country for heroin. Authorities in Venezuela, however, still consider that it is a transit country with all the heroin originating in Colombia. The Mexican authorities estimated that 80% of the heroin in their market was of domestic origin and the remaining 20% originated in Colombia and various Asian countries. Heroin imports into Canada are mainly from South-East Asia (via China) though imports from South-West Asia (via Europe) and from South America (via the USA) were reported as well.

After a strong decline in 2001, opiate seizures resumed growth in Oceania in 2002

The largest market for opiates in Oceania is Australia. Towards the end of 2000, Australia in cooperation with

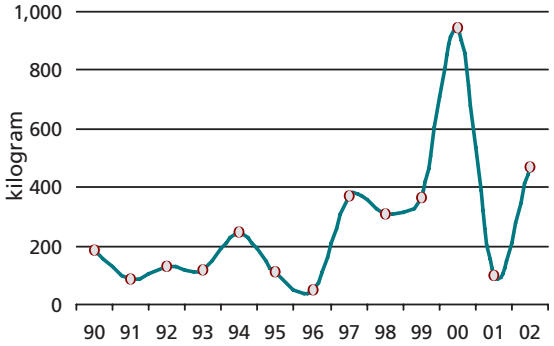
d) South America including Central America and the Caribbean.

e) From 1995 to 2002, the prevalence of lifetime use of heroin rate among youths aged 12 to 17 increased from 0.1 to 0.4 percent; among young adults aged 18 to 25 the rate rose from 0.8 to 1.6 percent. (Substance Abuse and Mental Health Services , *Results from the 2002 National Survey on Drug Use and Health: National Findings*, Rockville, MD, 2003).

a number of South-East Asian countries, dismantled several key trafficking networks that supplied the markets of Oceania. As a result, the supply of opiates was substantially reduced in 2001. While trafficking resumed and supply grew again in 2002, heroin availability did not return to pre-December 2000 levels. As a result of the continued supply squeeze, the street-level purity of heroin stayed low, prices remained high (though they are starting to decrease again) and abuse levels remained relatively low.

Most of the heroin used in Oceania comes from the Golden Triangle. The key transshipment points for heroin destined for the Australian market were Hong Kong SAR of China, Vietnam and Malaysia in 2002. In 2003, the Australian authorities intercepted a major shipment of heroin involving North Korean traffickers. The amount of heroin seized in this shipment was equivalent to more than a quarter of all the heroin seized in Australia in 2002.

Fig. 15: Opiate seizures in Oceania, 1990 - 2002

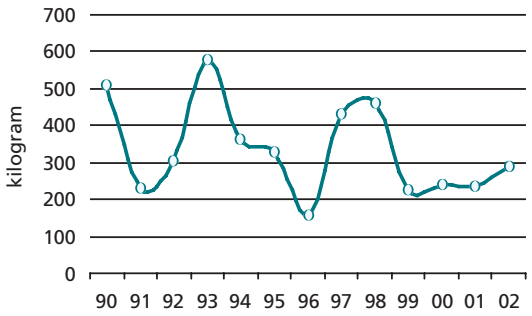


Source: UNODC, Annual Reports questionnaire Data/DELTA.

Opiate seizures remained limited in Africa

Seizures of opiates in Africa accounted for 0.3% of global seizures in 2002. These small amounts are not necessarily an indication of low trafficking levels, they are more probably a result of limited resources for law enforcement. In sub-regional terms, 40% of opiates in Africa were seized in West Africa, and a third was seized in East Africa. Most of the heroin was reported to have originated in Afghanistan/Pakistan, and to a lesser extent in South-East Asia. Pakistan, India and the United Arab Emirates are often used for the transshipment of South-West Asian heroin and Thailand for South-East Asian heroin. In several African countries, 90% or more of the heroin seized was destined for re-export to Europe and the USA.

Fig. 16: Opiate seizures in Africa, 1990 - 2002

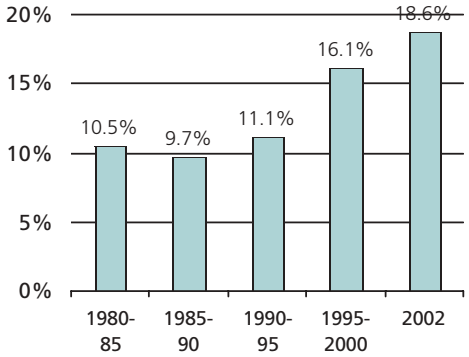


Source: UNODC, Annual Reports questionnaire Data/DELTA.

The global interception rate of opiates increased to 19% in 2002

In 2002, global production of illegal opiates was estimated to be 449 mt (expressed in heroin equivalents). Of this total, 83.7 mt of opiates were seized. The global interception rate of opiates was thus 19% of all illegally produced opiates. This is the third highest level ever recorded. (Higher interception rates were reported for the years 2000 and 2001). The interception rate was almost twice as high in 2002 as in the 1980s or the first half of the 1990s, suggesting an improvement in global law enforcement over the last two decades.

Fig. 17: Opiate interception rates: 1980-2002



Source: UNODC, Annual Reports questionnaire Data/DELTA.

Map 6. Seizures of opium in Asia in 2002 (only highest ranking countries represented)

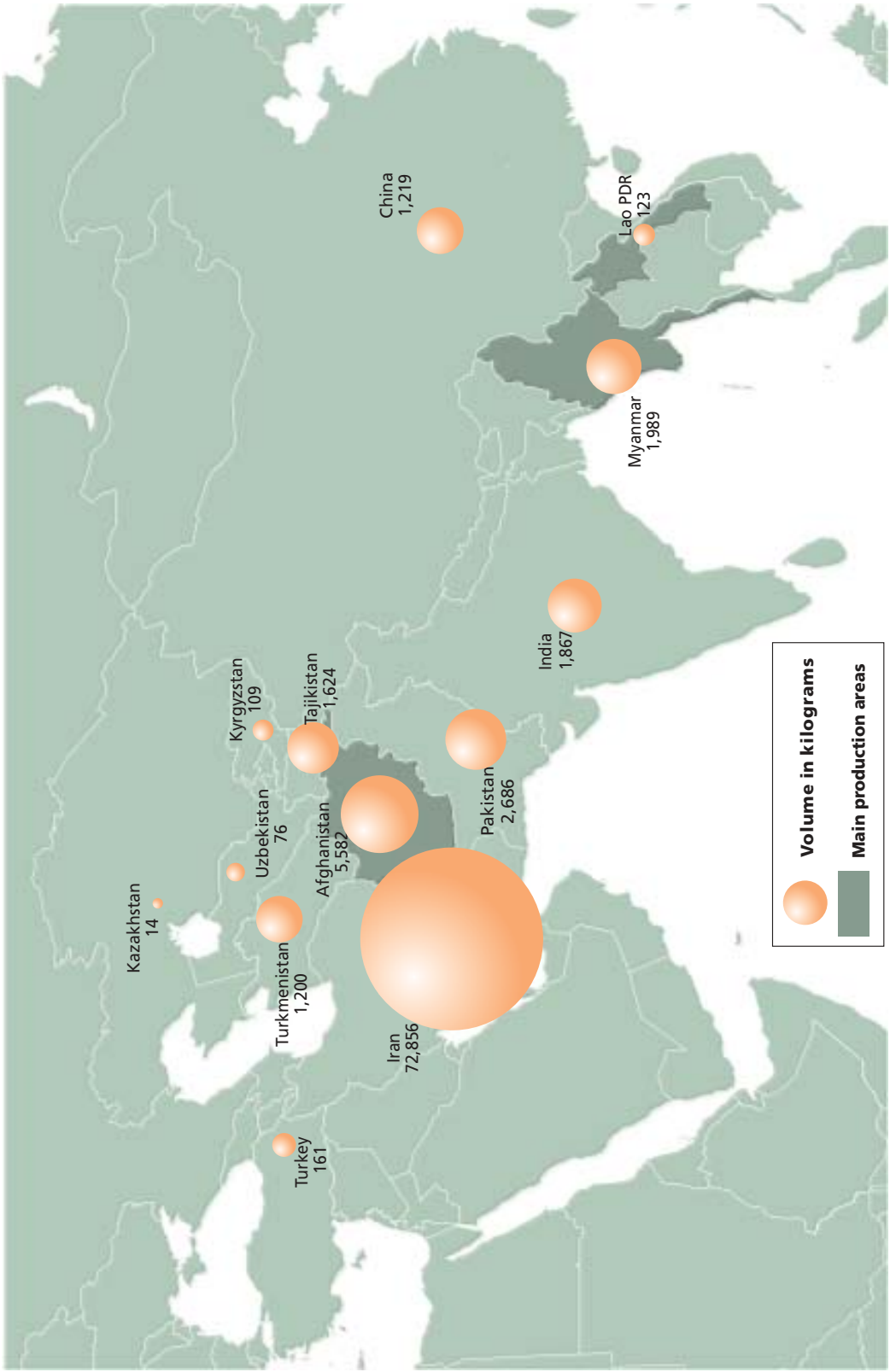
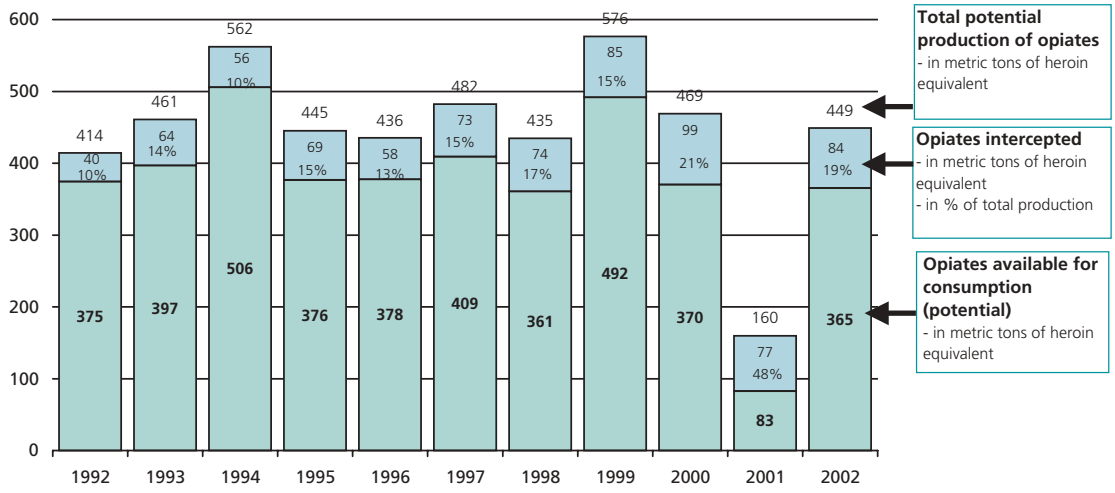
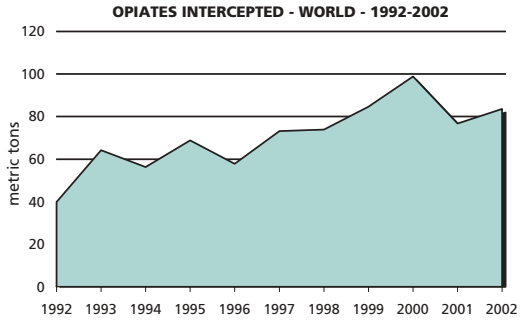
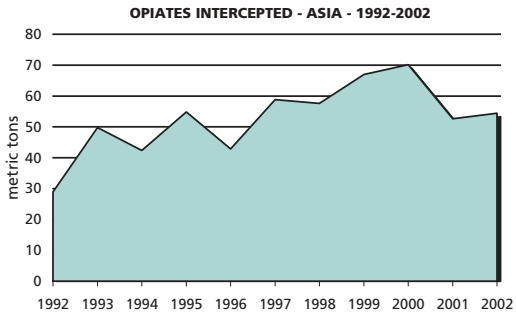
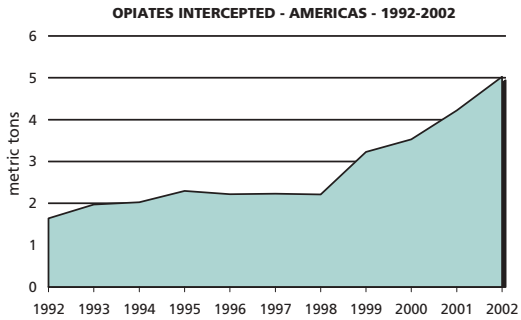


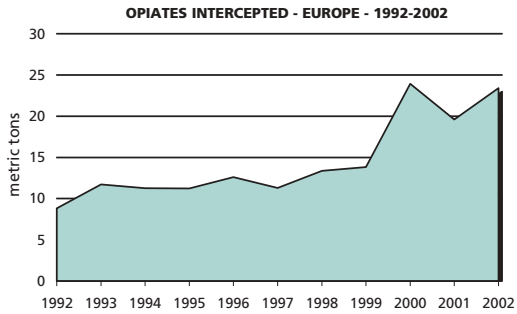
Fig. 18: Global illicit supply of opiates, 1992 - 2002

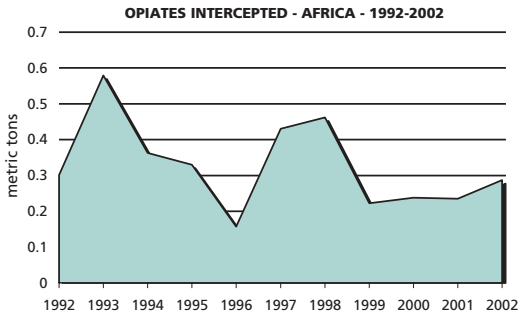












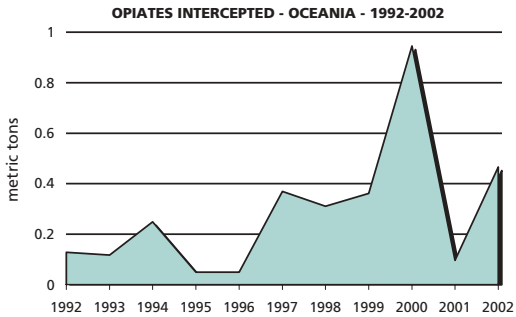
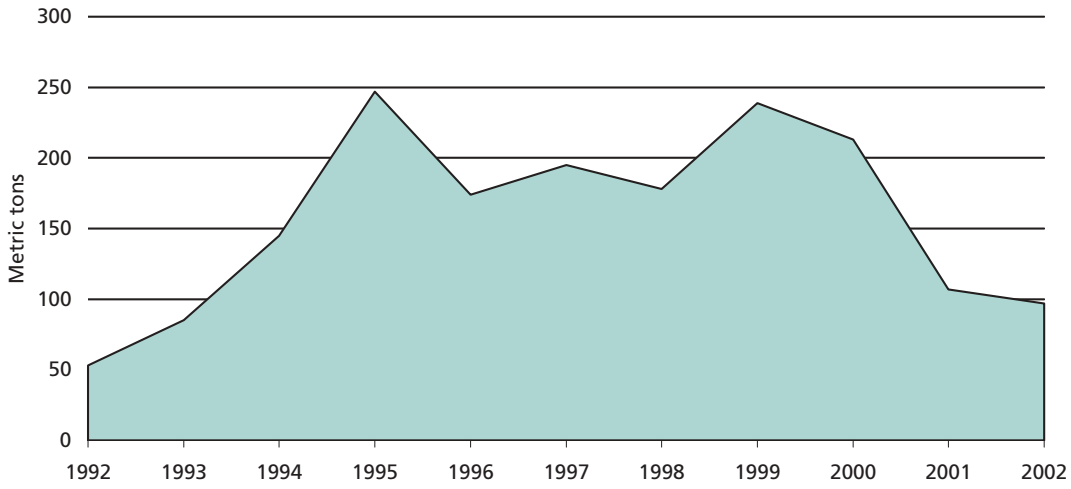
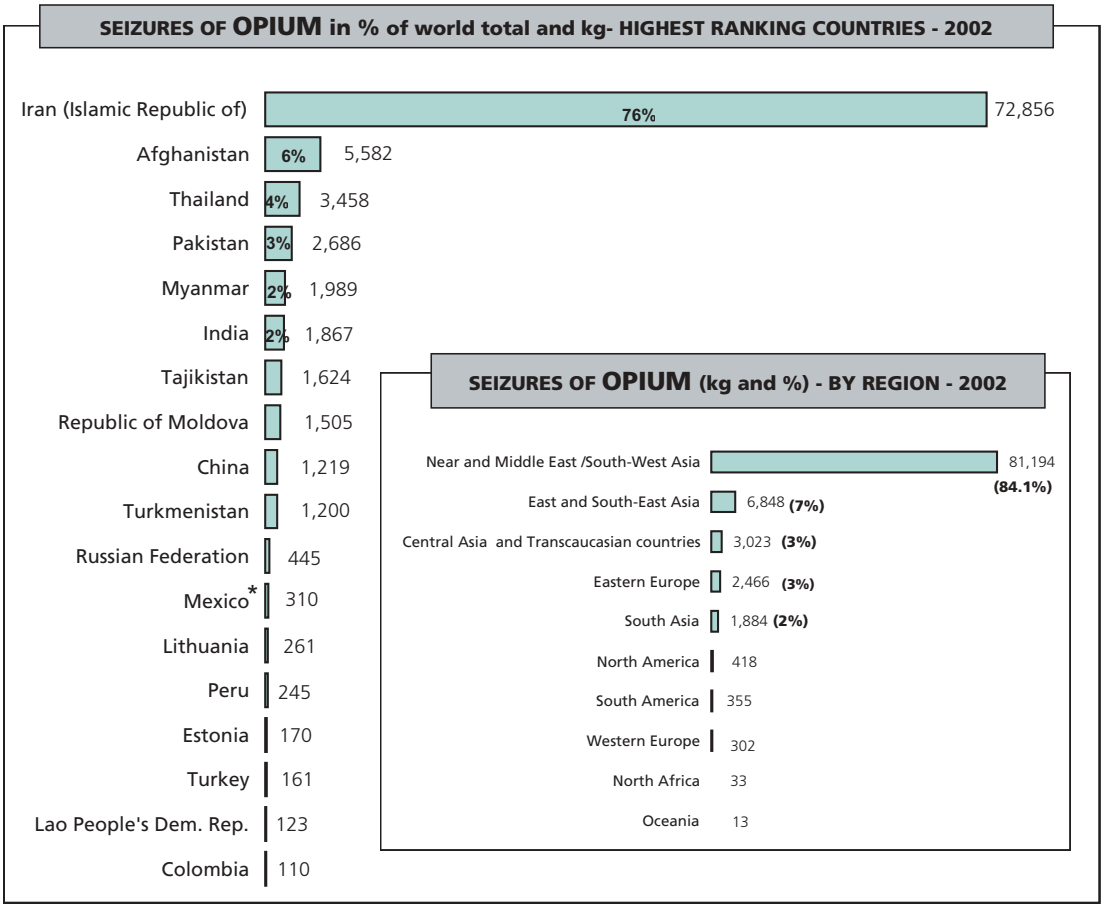


Fig. 19: Global seizures of opium, 1992 - 2002

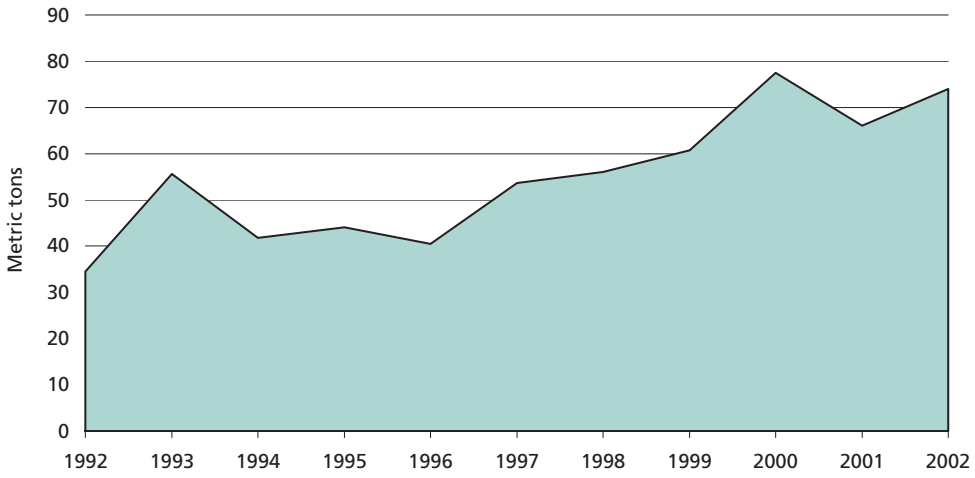


Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Metric tons	53	85	145	247	174	195	178	239	213	107	97



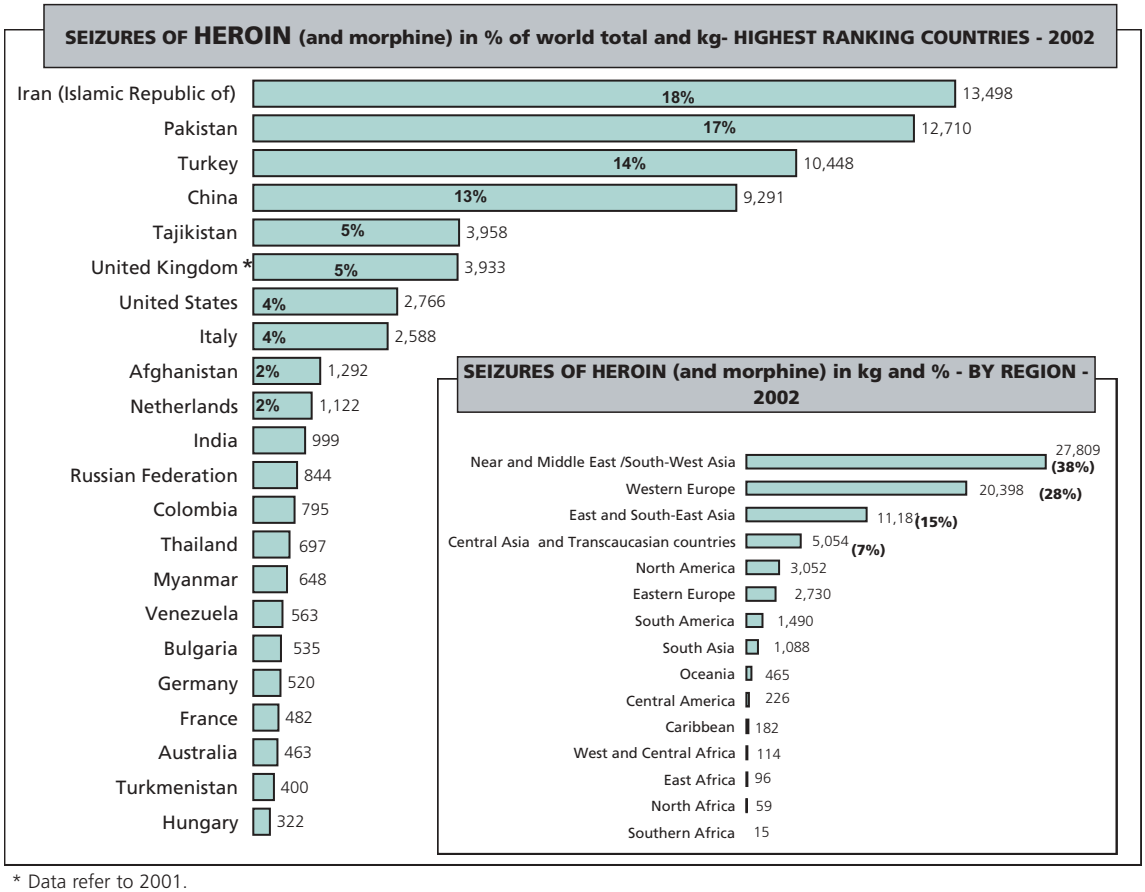
* Seizures refer to opium latex.

Fig. 20: Global seizures of heroin and morphine, 1992 - 2002



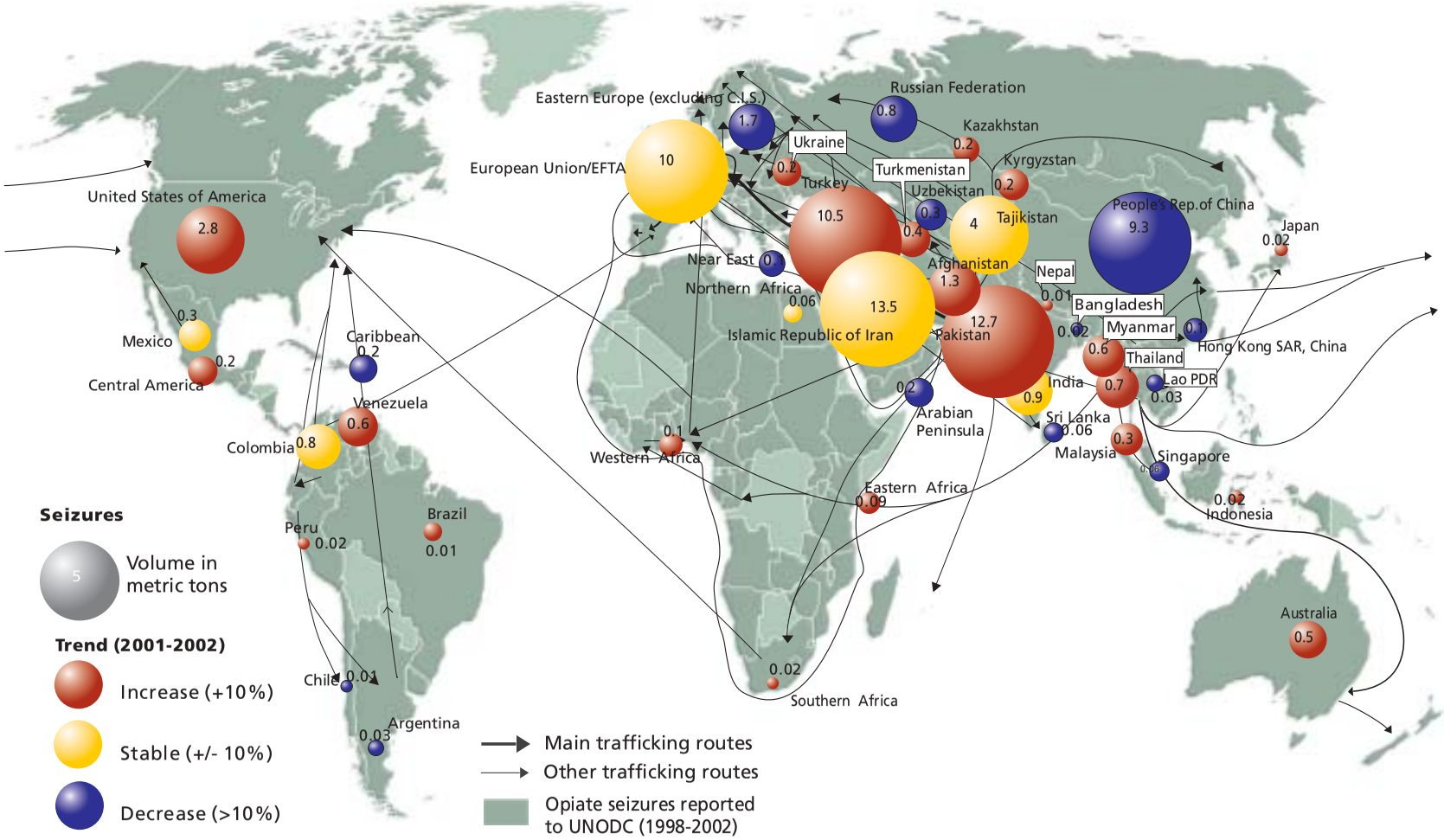
Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Metric tons*	35	56	42	44	40	54	56	61	77	66	74

*metric ton equivalents. 1 kilogram of morphine is assumed to be 1 kilogram of heroin.



* Data refer to 2001.

Map 7: Heroin and morphine seizures 2001 - 2002 : extent and trends (countries reporting seizures of more than 0.01 tons (10 kg.))



Note: Routes shown are not necessarily documented actual routes, but are rather general indications of the directions of illicit drug flows.

2.1.3. Abuse

2.2.3.1. Extent

The opiates, notably heroin, continue to be the main problem drugs in the world. Two thirds of treatment demand in Asia, Europe and Oceania, which account for three quarters of the world's total population, is related to the abuse of opiates. Even in the USA, where cocaine was traditionally the main problem drug, more people were admitted for heroin abuse treatment (28% of all treatment demand excluding alcohol) than for cocaine abuse (23%) in 2001.

Opiate use (including heroin) over the 2000-2001 period affected some 15 million people or 0.4% of the population age 15-64. More than 9 million people are estimated to abuse heroin, slightly more than 0.2% of the population age 15-64.

More than half of the world's opiate users are found in Asia (7.8 million), primarily in the countries surrounding Afghanistan and Myanmar. The highest prevalence rates have been reported from Iran, Kyrgyzstan and the Lao PDR. India has the largest number of opiate users, though prevalence rates there are lower than in neighbouring Pakistan or Myanmar. A national household survey conducted in India in 2001 found that 0.7% of the male population age 12-60 consumed opiates, equivalent to about 0.4% of the total population age 15-64. More than half of all opiate use is heroin use; most of the rest is accounted for by opium consumption.

The total number of opiate users in Europe amounts to some 4 million people. This accounts for a quarter of the global total (0.8% of the population age 15-64). Two thirds of Europe's opiate users are found in Eastern Europe, partially due to very high levels of opiate use in the Russian Federation. IDU related HIV data and independently conducted school surveys also seem to confirm this[f]. The highest levels of opiate use in Western Europe are found in Luxembourg, Portugal, the UK, Italy and Switzerland (ranging from 0.6%-1% of the population age 15-64).

Some of the difference between Western and Eastern Europe in the overall prevalence rates of the general population may be also due to differences in the methods for making national estimates. The West European estimates are largely based on the concept of "problem" drug users. These are arrived at through various estimation techniques: different multiplier methods, capture-re/capture methods, multivariate indicators, etc. The estimate for the Russian Federation is derived from the number of registered drug users, the proportion of opiate users and a multiplier derived from local studies. The majority of opiate users in the Russian Federation (and in some other C.I.S. countries) consume a brew of poppy straw (known as 'kompot') which is injected. If this is excluded and only heroin abuse is considered, the result would reveal about the same number of heroin users in Eastern Europe as in Western Europe. Heroin abuse has been on the rise in Eastern Europe over the last decade (except for 2002) while it remained stable or showed declining levels in most West European countries.

Opiate use levels in Oceania, prior to 2001, used to be significantly above the global average. However, a heroin shortage in Australia in 2001, in combination with readily available treatment capacity, helped to reduce heroin abuse significantly, and it remained at the lower levels in 2002 as well. Overall levels of heroin abuse are thus approaching the global average.

In the Americas about 2½ million people use opiates (about 1/6th of global opiate use), including 1.4 million people abusing heroin. There is a concentration in North America where 60% of all opiate use or close to 90% of all heroin abuse in the Americas occurs. The USA (0.6% of the population age 15-65) is, by far, the

f) The weighted average (by the size of the youth population) of lifetime prevalence of heroin use among 15-16 year olds in West Europe (ESPAD survey data and other surveys for Germany, Spain, and the Benelux countries) was 1.7%, less than half the average rate found in Eastern Europe (3.8%). (UNODC, *Global Illicit Drug Trends 2002*).

Table 4: Annual prevalence estimates of opiates use: 2001-2003

	Opiates		of which heroin	
	Number of people (in million)	in % of population age 15-64	Number of people (in million)	in % of population age 15 - 64
EUROPE	4.0	0.75	2.75	0.51
- West Europe	1.3	0.41	1.27	0.41
- East Europe	2.7	1.18	1.48	
OCEANIA	0.1	0.5	0.06	0.3
AMERICAS	2.5	0.45	1.42	0.26
- North America	1.5	0.54	1.24	0.45
- South America	1	0.37	0.18	0.07
ASIA	7.8	0.32	4.13	0.17
AFRICA	0.8	0.17	0.8	0.17
GLOBAL	**15.2**	**0.38**	**9.16**	**0.23**

Opiate abuse above global average
Opiate abuse close to global average
Opiate abuse below global average

Sources: UNODC, Annual Reports Questionnaire data, various Govt. reports, reports of regional bodies, UNODC estimates.

largest heroin market in the Americas. The rather high levels of opiate use reported from South America are mainly due to the large-scale use of synthetic opiates reported from Brazil (diverted from the licit market where they are used as analgesics). If only heroin abuse is considered, South America seems to have the lowest levels of abuse worldwide, though there are indications that heroin abuse is rising. Estimates for countries in Africa suggest that opiate use is still below the global average. It is basically linked to abuse of heroin in those urban areas which serve as transshipment locations for international trafficking activities. Opium use is not widespread.

Importance of opiate use compared to other drugs

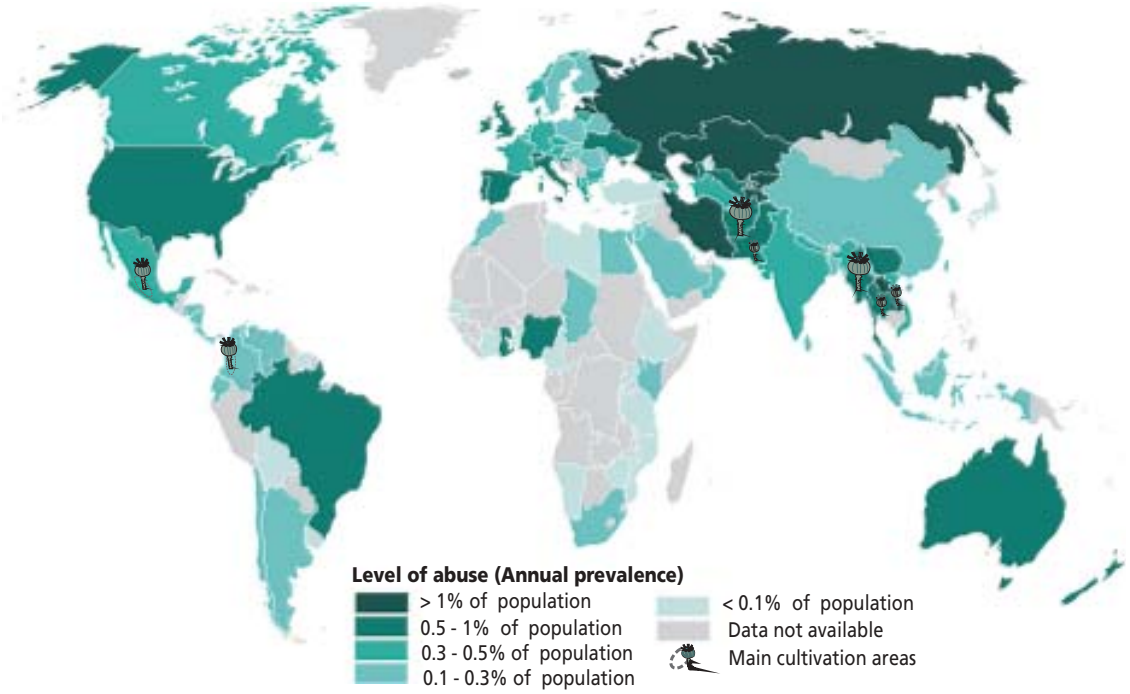
As part of the Annual Reports Questionnaire (ARQ), countries are asked to rank drugs according to prevalence. This ranking can provide key information about the patterns of drug abuse, particularly in countries which have not yet undertaken any in-depth epidemiological surveys. The question is based on the assumption that experts in the field are likely to have a good idea about the main drugs of abuse in their country even if no epidemiological study has been undertaken in the country concerned.

According to the results of this exercise, opiates are of significant importance in Asia and large parts of Eastern Europe, ranking 1st or 2nd as compared to other drugs. It should be noted though that a number of countries in these regions ranked both cannabis and opiates as the most prevalent drug. Moreover, a number of countries of the former Soviet Union and in Asia have drug-registry systems; opiate users are more likely to enter such registries than cannabis users.

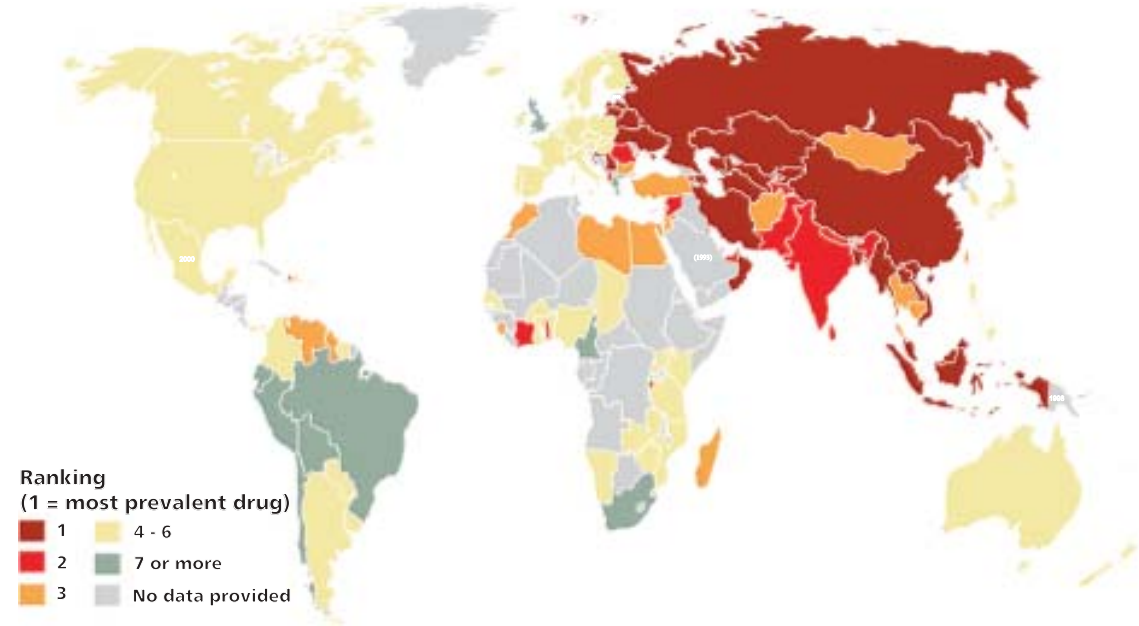
Despite some methodological deficiencies, Map No.8 shows very clearly that opiate use is primarily a problem in Asia and in Eastern Europe, confirming the patterns derived from prevalence estimates. By contrast, in Western Europe, in several of the new EU countries, in North and Central America, in Oceania and parts of Eastern, Southern and Western Africa, heroin is the 4th to 6th most prevalent substance of abuse. One exception is the UK which has one of the highest heroin prevalence rates in Western Europe; still, heroin, in terms of prevalence, ranks only 7th among the substances most widely abused in that country.

A low relative importance of heroin abuse was also reported from countries in South America. This seems to confirm that heroin abuse is not widespread in that region.

Map 8: Use of opiates (including heroin) 2001 - 2003 (or latest year available)



Map 9: Ranking of opiates in order of prevalence in 2002



Sources: UNODC Annual Reports Questionnaires data, SAMSHA US National Household Survey on Drug Abuse, Iranian Ministry of Health, Rapid Assessement Study and UNODC ARQ,Council of Europe, ESPAD.

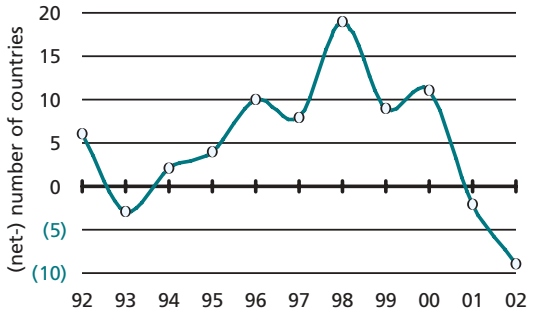
2.2.3.2. Trends

GLOBAL

Stabilization of heroin abuse in 2002

At the global level, there are still more countries reporting increases than declines in the use of opiates (heroin, morphine and opium). Nonetheless, progress has been made in recent years. If the difference between the number of countries reporting increases in heroin abuse and those reporting stable or declining trends is calculated, the resulting balance is now clearly in favour of countries reporting stable or declining levels of abuse. This is in sharp contrast to the situation throughout most of the 1990s when the number of countries reporting increases was far higher than those reporting decreases. The results in 2002 were thus the most encouraging over the last decade.

Fig. 21: Heroin abuse trend, 1992 - 2002
Number of countries reporting increases less number of countries reporting stable/declining levels of abuse

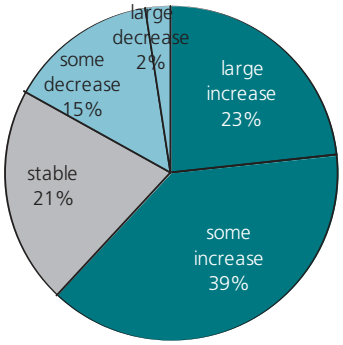


Source: UNODC, Annual Reports questionnaire Data/DELTA.

A comparison between the trend reports for the year 2000 and subsequent years shows that the number of countries reporting 'large increases' declined markedly, while the number of countries reporting decreasing levels of heroin abuse were on the rise. While in 2000, 23% of all responding countries reported a 'large increase' of heroin abuse, this proportion fell to 9% in 2001 and 2002, suggesting that the heroin epidemic lost momentum in 2001 (the year in which global opium production fell by 65%) and did not recover in 2002. In parallel, the number of countries reporting declining levels of heroin abuse rose from 17% in 2000 to 23% in 2001 and to 26% in 2002 .

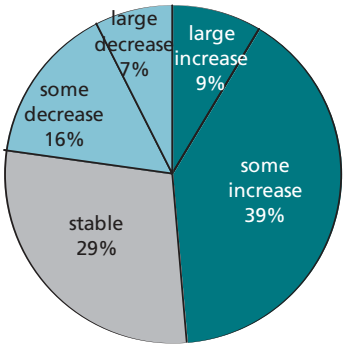
Unfortunately, these positive trends may not continue over the next few years as global production of opium - on the strength of expanding production in Afghanistan - is increasing.

Fig. 22: Heroin abuse trends in 2000 (n = 47 countries)



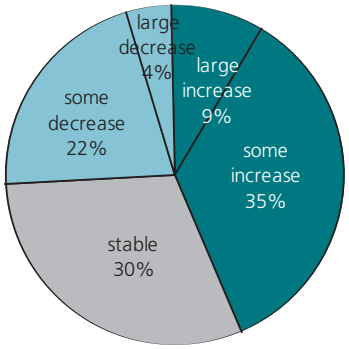
Source: UNODC, Annual Reports questionnaire Data/DELTA.

Fig. 23: Heroin abuse trends in 2001 (n = 70 countries)



Source: UNODC, Annual Reports questionnaire Data/DELTA.

Fig. 24: Heroin abuse trends in 2002 (n = 69 countries)



Source: UNODC, Annual Reports questionnaire Data/DELTA.

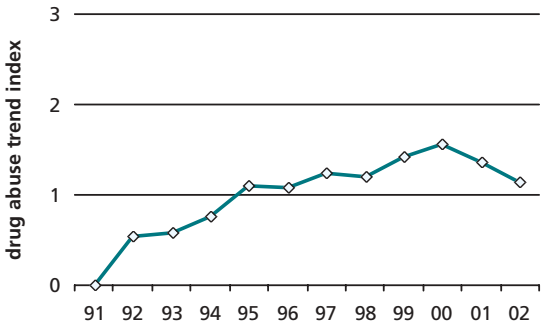
EUROPE

Stable/declining trends of heroin abuse in Western Europe

Heroin abuse reported to UNDOC from the countries of West Europe continued on a stable to declining trend. These trends are confirmed by a number of statistical data, including household surveys, proportion of populations in treatment for heroin abuse, age of populations in treatment, the prevalence of HIV/AIDS among drug addicts, the amount of first time offenders in drug law violations and drug related deaths. Most of these indicators showed a deterioration in the 1980s. They stabilized, or showed even falling levels of abuse in several West European countries in recent years. These trends became even more pronounced in 2001 and 2002. Thus, out of 16 reporting countries only two countries saw an increase in the use of opiates in 2002. Ten reported a stable trend and four experienced a decline.

Using the trend information collected from Member States over a number of years, a new analytical tool, called *Weighted Analysis on Drug Abuse Trends* (more simply referred to as *Drug Abuse Trend Index*) was designed by UNODC[g] to allow for a slightly more sophisticated analysis of regional trends in drug abuse. The Index takes into account the degree of change in drug abuse levels, as reported by member states, and the different population size of the countries. Each degree of trend estimation, reported by Member States, was given a numerical value ranging from -2 to +2 (with -2 representing a large decrease; -1 some decrease; 0 no great change; +1 some increase; and +2 a large increase). The results of individual countries were then weighted by the country's size in terms of population, i.e. estimates for a drug type (in this case heroin) were multiplied by the proportion of the population (age 15-64) of the country in its particular region[h]. The national estimates were added to represent annual sub-regional trend estimates. Based on this a cumulative trend figure for the respective sub-region was calculated. The resulting *Drug Abuse Trend Index*[i] for Western Europe showed only some minor increases in the use of heroin in the second half of the 1990s, followed by some decline over the 2000-2002 period[j]. The overall trend over the last decade was relatively stable.

Fig. 25: Heroin consumption trend in Western Europe: based on national experts'perceptions, 1991 - 2002



Source: UNODC, Annual Reports questionnaire Data/DELTA.

The pattern revealed in this index is confirmed by other indicators. Drug related deaths, which in the European context are mainly related to abuse of opiates, increased only slightly during the 1990s but declined - according to preliminary calculations - by almost 20% between 2000 and 2002 in Western Europe and are now back to levels last seen in the early 1990s. Strongly declining

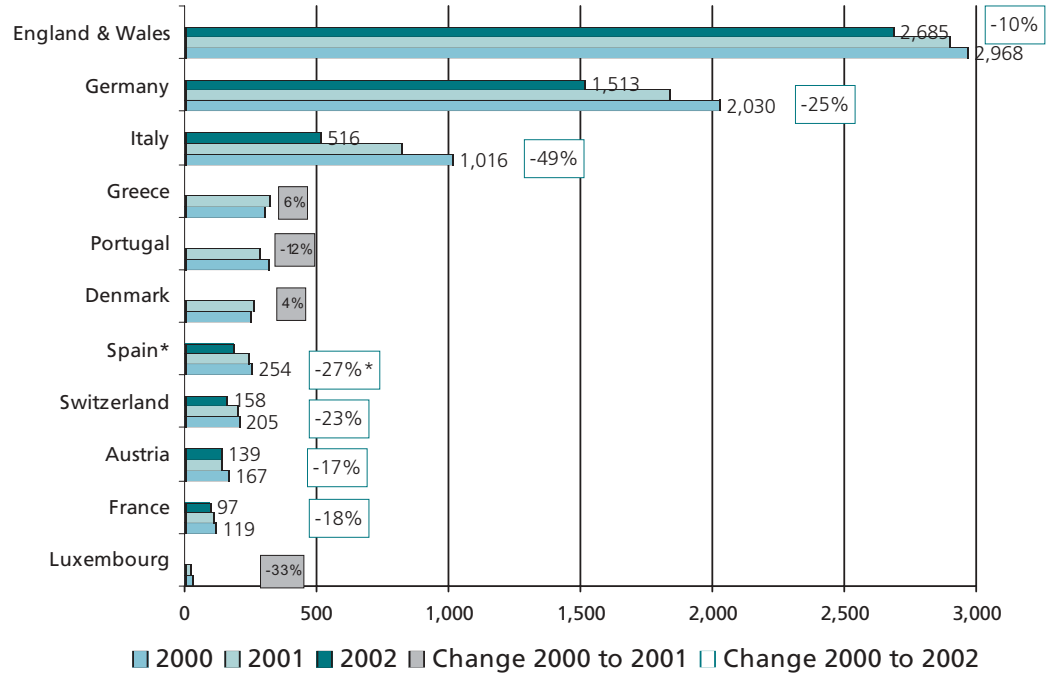
g) The *Weighted Analysis on Drug Abuse Trends* was first used for UNODC's Report to the Commission on Narcotic Drugs, World Situation with Regard to Drug Abuse, 15-22 March 2004.

h) For more information on the construction of the index, see chapter on methodolgy.

i) The advantage of such an analysis is that differences (in the degree of the changes) are reflected in the final results. In addition, the population size affected by the estimated trend is taken into account. This gives more weight to the results reported from larger countries which - in absolute terms - are likely to have a higher addict population than smaller countries. This weighting procedure reduces the likelihood, but does not completely prevent, the calculation of misleading results. A country with a low prevalence in drug abuse is still given the same weight as a country with a high prevalence rate and a similar population (though in reality its impact on the overall trend would be smaller). Otherwise, the same limitations, as discussed earlier, apply to the Drug Abuse Trend Index. The information remains based on expert opinions of government officials which may or may not adequately reflect actual trends. UNODC is also aware that some of the underlying assumptions do not necessarily hold true. For instance, it cannot be guaranteed that the differences between various reported degrees of drug abuse trends (e.g. between "some increase" and "large increase") are interpreted in the same way in different countries. Irrespective of these caveats, the overall results - wherever comparisons with other indicators could be made - were found to be basically in line with these indicators.

j) If all countries in a year reported 'some increase' the index would have to rise by 1. If half of the countries, in terms of population, reported ' some increase' and the rest reported a stable trend, the increase of the index would amount to 0.5 in a specific year. The largest increase in Western Europe for heroin in any specific year over the last decade amounted to 0.5 (in 1992); the largest increase over the last five years was 0.2 in 1999 (the year of Afghanistan's bumper harvest); in 2000 and 2001 the index showed a decline (-0.2 in 2002).

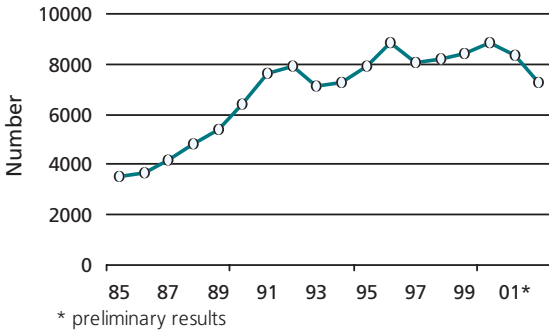
Fig. 26: Drug related deaths in Western Europe, 2000 - 2002



* data for Spain refers to 5 cities; 2002 estimate based on decline reported for country as a whole.

Source: EMCDDA, UNODC, Annual Reports questionnaire Data/DELTA.

Fig. 27: Acute drug related death in the EU-15, 1985 - 2002



* preliminary results

Source: EMCDDA, UNODC, Annual Reports questionnaire Data/DELTA.

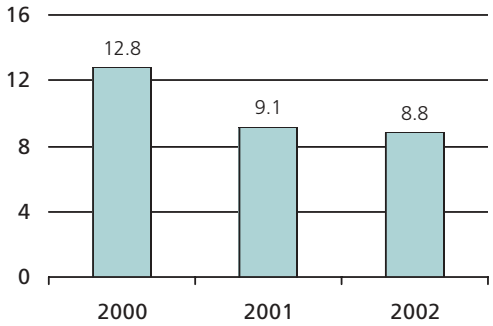
numbers of drug related deaths were reported, inter alia from Italy, the UK, Germany, Spain, Switzerland, Austria and France. Although all European countries have undertaken efforts to reduce drug related mortality rates over the last decade, the general decline over the 2000-2002 period appears to have been largely the result of lower levels of supply leading to less high purity heroin on the market, thereby reducing the risk of overdose. Unfortunately, this positive trend is unlikely to continue over the next few years as large-scale opium production has resumed in Afghanistan and a further rise in Afghanistan's opium output is expected for 2004.

"Problem drug use" appears to have increased slightly in Western Europe after the mid-1990s. Though problem drug use in Western Europe is primarily related to abuse of opiates, the increase was not related to heroin abuse, but to poly-drug use (including use of cocaine, notably crack-cocaine, and use of amphetamines). Prevalence estimates of 'problem drug use' (mostly opiates), range between 0.2% and 1% (on average around 0.4%) among members of the general population aged 15-64[k] in Western Europe. Heroin abuse levels identified through household surveys are significantly smaller, (in most cases between 0.1% and 0.2% of the general population), and have been generally stable or falling. There are also indications that injecting of drugs has

k) European Monitoring Centre for Drugs and Drug Addiction, Annual Report 2003: the State of the Drugs Problem in the European Union and Norway (Lisbon, 2003).

been stable or decreasing over the last few years in most countries in Western Europe. Newly diagnosed HIV infections related to injecting drug use (IDU) have experienced a general decline since 2000. They fell in Western Europe by more than 30% between 2000 and 2002. The strongest declines were reported by Portugal (-53%), Finland (-53%), Ireland (-29%), Greece (-26%) and Germany (-25%). Further confirming this picture there has been a drop in the attribution of new HIV infections to IDU. While in 2000 28% of all new HIV infections had been related to injecting drug use, the proportion fell to 11% by 2002 and to 8% over the first two quarters of 2003. Various interventions, targeted at injecting drug users, appear to have contributed to reducing these levels. Reflecting HIV infections contracted in previous years, the number of newly diagnosed IDU related AIDS cases (2700 in 2002) still accounted for 28% of all newly registered AIDS cases in Western Europe. The largest numbers of IDU related AIDS cases, registered in 2002, were reported by Portugal (38 per million inhabitants), followed by Spain (30), Italy (11), Switzerland (7) and France (4). In other West European countries this figure was around 1 or less.

Fig. 28: Injecting drug use related (newly diagnosed) HIV infections in Western Europe* per million inhabitants



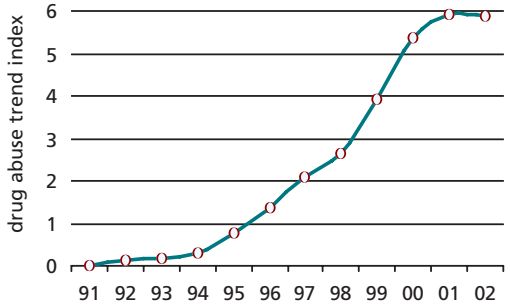
* Belgium, Denmark, Finland, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Sweden, UK, Iceland, Malta, Norway, Switzerland.

Source: EuroHIV Surveillance in Europe, Mid-Year Report 2003.

Heroin abuse trends in Eastern Europe have been going upwards, except in 2002

Heroin abuse in Eastern Europe has grown strongly over the last decade. This is clearly reflected in UNODC's Drug Abuse Trend Index. 2002 was the only year when some (temporary) stabilization at high levels could be observed. Poland, Slovakia and Croatia all reported some decline of heroin abuse in 2002; Ukraine, Bulgaria, Hungary and the Czech Republic saw abuse levels stabilize. Reports from the Russian Federation also point to some stabilization of heroin abuse at high levels following years of massive increases. Increases in heroin abuse, in contrast, were reported by Belarus, Latvia and Romania. Strong increases were reported by Albania, apparently reflecting Albania's increasing role as an important transhipment location (and thus spill-overs on to the local market) for heroin being shipped from Turkey via Bulgaria, FYR of Macedonia and Albania to Italy.

Fig. 29: Heroin consumption trend in Eastern Europe: based on national experts' perceptions, 1991 - 2002

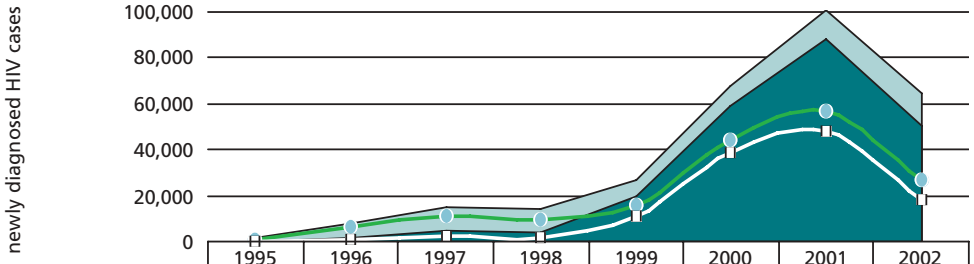


Source: UNODC, Annual Reports Questionnaire Data.

The best reflection of the underlying trend pattern of the Drug Abuse Trend index for Eastern Europe is found in Russian registry data of drug addicts. Their number doubled between 1995 and 1991 and quadrupled over the 1995-2000 period. Following another strong increase in 2001, it remained almost unchanged in 2002, before rising again in 2003 as large shipments of Afghan heroin flooded the Russian market. This affected prices and made heroin more accessible to Russian society. After having increased slightly from an average of $38 per gram 2001 to $42 per gram in 2002, heroin prices fell to an average of $25 per gram in 2003 (ranging from $12 next to the border with Kazakhstan to $45 next to the border with Finland).

Based on data from various sources, the Russian Federation appears to be Europe's largest heroin market. The total number of drug users in the Russian Federation is now estimated by the Russian authorities to amount to some 3 to 4 million people (though, in the absence of nationwide epidemiological surveys, there are uncertainities regarding these figures). Amongst this population some 2 million (2.1% of the population age 15-64)

Fig. 30: Newly diagnosed HIV and IDU-related HIV cases in Russia and other countries of the former Soviet Union



	1995	1996	1997	1998	1999	2000	2001	2002
Former Soviet Union - new HIV cases	1743	8125	14914	14219	27028	67694	100580	64352
Russia - new HIV cases	197	1516	4377	4046	19940	59162	88253	50529
Former Soviet Union - IDU related	1030	6405	11282	9501	15819	44213	56632	26694
Russia - IDU related	5	1021	2536	1816	11147	38471	48231	18503

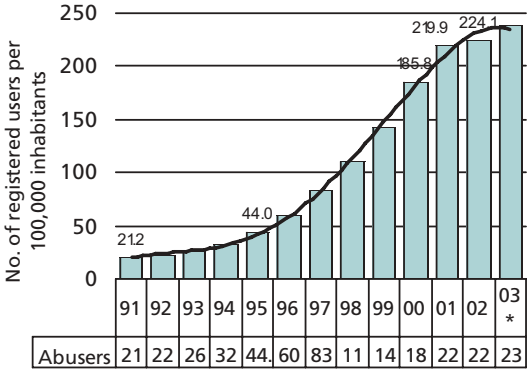
Former Soviet Union - new HIV cases Russia - new HIV cases
Former Soviet Union - IDU related Russia - IDU related

Source: EuroHIV, *Surveillance in Europe*, Mid-year Report 2003 and previous years.

are estimated to consume opiates, including about 1 million abusing heroin (range 400,000-1,200,000). The largest heroin markets in Western Europe - UK (260,000), Italy (260,000), Germany (170,000), France (165,000), Spain (145,000) are - in absolute numbers - significantly smaller.

The Russian Federation also has one of the highest injecting drug use (IDU) related HIV rates in the world, and - until 2001 - it had been increasing rapidly. In 2002, however, newly reported cases of IDU related HIV declined strongly in the Russian Federation as well as in a number of other countries of the former Soviet Union (Kazakhstan, Tajikistan, Kyrgyzstan, Moldova, Azerbaijan, Georgia, Moldova, Estonia and Latvia) and in Poland, leading to a significant decline in the overall number of newly diagnosed HIV cases (-43% in the Russian Federation and -36% in the countries of the former Soviet Union). While in 2000 65% of all new HIV cases in the countries of the former Soviet Union were IDU related, the proportion fell to 41% in 2002. Nonetheless, the reported numbers of IDU related HIV infections are still very high by European standards. Similarly, whereas in Germany or the UK the number of newly identified IDU related HIV infections was 2 persons per million inhabitants in 2002, the corresponding ratios were 129 in the Russian Federation, 94 in Ukraine, 58 in Belarus and 33 in Moldova. The levels in the Baltic countries were even higher: 103 in Lithuania, 164 in Latvia and 516 in Estonia.

Fig. 31: Russian Federation: Number of registered drug addicts per 100,000 inhabitants, 1991 - 2003



	91	92	93	94	95	96	97	98	99	00	01	02	03 *
Abusers	21	22	26	32	44	60	83	11	14	18	22	22	23

* preliminary; first half of 2003

Sources: UNODC, Annual Reports Questionnaire Data and Govt. Reports.

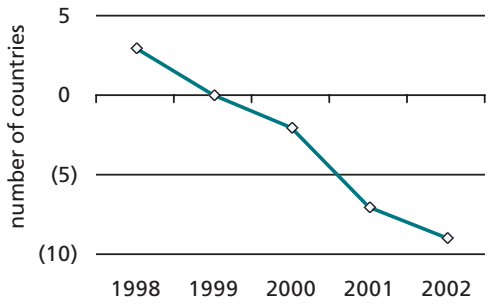
ASIA

Trend towards stabilization of opiate use in 2002…

The pattern of trends in opiates use in Asia in 2002 was mixed. Stable/declining trends were reported from most countries in East and South-East Asia reflecting falling levels of opium production in Myanmar and Laos. Stable or declining trends were also reported from Pakistan and some of the Central Asian countries, a delayed

consequence of Afghanistan's opium poppy ban of 2001. The number of countries showing stable or declining levels of opiate use in Asia thus outweighed those reporting rising levels of opiate use. This trend became even more pronounced in 2002. (In 2003, however, Afghanistan, as well as most of the countries surrounding Afghanistan, started reporting again rising levels of abuse.)

Fig. 32: Unweighted opiate abuse trends in Asia
No. of countries reporting increasing less those reporting stable/declining levels of abuse

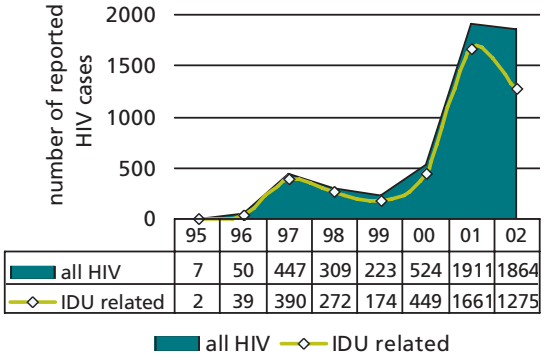


Source: UNODC, Annual Reports Questionnaire Data.

...in Central Asia…

Central Asia, which suffered for many years from the strongest growth rates of heroin abuse and HIV related to injecting drug use (IDU), saw a marked decline in the number of newly diagnosed HIV cases in 2002, which fell by more than 20%. While, in 2001, 87% of all new HIV cases were related to injecting drug use, the proportion fell to 68% in 2002. This decline helped to stabilise the overall number of new HIV cases in this subregion.

Fig. 33: Central Asia: newly diagnosed HIV cases, 1995-2002



Source: EuroHIV, Surveillance in Europe, Mid-year Report 2003 and previous years.

… in South-West Asia…

In Pakistan overall heroin abuse was reported to have declined slightly in 2002, while use of hashish, benzodiazepines and solvents increased. At the same time, however, authorities reported a strong increase in injection of heroin, a trend also seen in previous years. There was also an increase in demand for heroin treatment in 2002, notably for injecting heroin users.

… in South Asia…

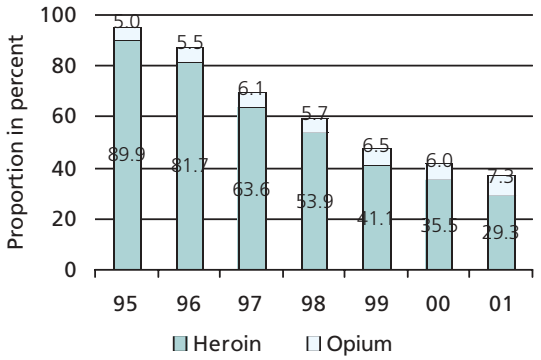
In India, overall opiate use was reported to have remained stable in 2002 following years of increase, notably over the 1997-2000 period, as documented in a Rapid Assessment Study, sponsored by the Indian Government and UNODC[l]. In terms of treatment demand, the authorities reported a stabilization for treatment involving heroin and even some decline for treatment of opium addiction in 2002. Though still limited, the injecting of opiates is continuing to increase. A national household survey conducted in India in 2002, found that 0.7% of the male population, age 12-60, were 'current users' (at least once in the last month) of opiates, including 0.4% of the male population abusing opium, 0.2% heroin and 0.1% other opiates. Other studies showed that around 90% of all drugs in India are consumed by males. India has thus with around 2.8 million people (males and females), the largest absolute number of opiate users worldwide, although prevalence rates there are smaller than in Pakistan, Iran, Myanmar or Laos. States with high levels of opiate use are mainly in the north west, close to Afghanistan, and the north east, close to Myanmar.

… and in South-East Asia…

In East and South East Asia the main 'growth sector' was not opiates but methamphetamine. Poor opium harvests in South East Asia, notably Myanmar, apparently played a role in this respect. This is clearly reflected in data from Thailand, which shows a continuing downward trend in opiate use since the mid 1990s running alongside an increasing trend in methamphetamine use. While, in 1995, 95% of all people in treatment had used opiates, by 2001 this proportion had fallen to

l) UNDCP, National Survey on Extent, Pattern & Trends of Drug Abuse in India, National Report 2002.

Fig. 34: Thailand: Proportion of addicts using opiates over the last 30 days prior to entering treatment (Number of patients in 2001: 39,931)



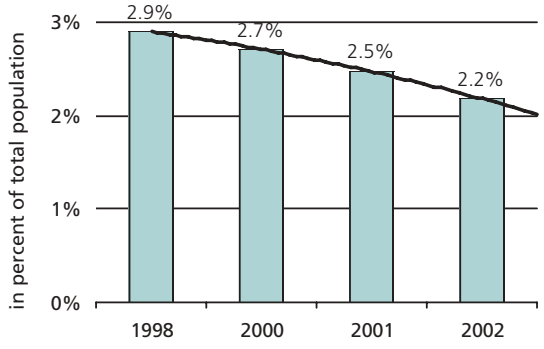
Sources: Office of the Narcotics Control Board, *Thailand Narcotics Annual Report 2001*, and previous years, and UNDCP GAP meeting, November 2001.

37%. Declines in opiate use in 2002 were reported from Myanmar, Indonesia, Singapore, Brunei Darussalam and the Lao PDR.

As part of the periodic LAO/UNODC opium poppy surveys in the Lao PDR - the world's third largest opium producing country - data on opium use is also collected in the northern provinces where opium production takes place. These surveys showed that after a strong increase over the 1992-98 period, the prevalence of opium use has fallen again in recent years parallel to falling opium production. Opium production in the Lao PDR declined by 20% in 2001, and the number of opiate users fell by 8% in 2001 as compared to a year earlier. In 2002 opium production fell by 16% and the number of opiate users declined by 9% in 2002 as compared to a year earlier. In 2003 opium production fell by 16% and the number of opiate users declined by 9%. This pattern was also repeated in 2003 when both opium production and opium use declined[m].

The link between opium production and consumption was confirmed in a more in-depth analysis of the prevalence rates in Northern Laos. Villages with opium production had, on average, a prevalence rate 27% higher than non-producing villages in the same region (based on 2000 data). While negligible opium use was reported from the southern provinces, where no poppy is grown, overall prevalence of opium use in the poppy growing regions of Northern Laos was 4% of the population age 15-64 in 2002, and was thus higher than in any other country of the world.

Fig. 35: Lao PDR: Prevalence of opiate use in 11 northern provinces

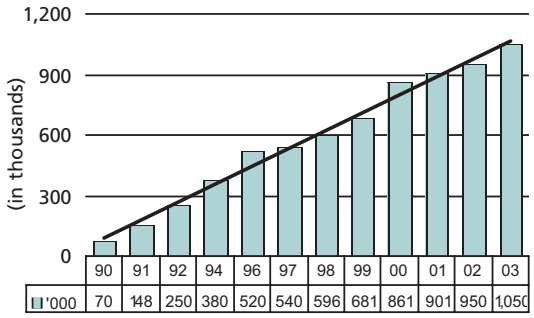


Source: UNODCCP/Lao National Commission for Drug Control and Supervision, *Opium Survey 2002* (and previous years).

… but continues to grow in China…

In contrast to a majority of Asian countries reporting stable or declining abuse trends in 2002, opiate abuse was reported to have continued rising in China, the world's most populous country. The number of registered drug addicts rose in 2002 and in 2003 to exceed 1 million people, a 15-fold increase over the 1990-2003 period. The bulk of the opiates destined for the Chinese

Fig. 36:People's Republic of China: Number of registered drug addicts (70% for heroin in 2003)



Sources: UNODC, Annual Reports Questionnaire Data, China National Narcotics Control Commission, *Annual Report on Drug Control in China 2003* and previous years; *Report of the Asian Multicity Epidemiology Workgroup 2002*, U.S. Dept. of State, *International Narcotics Control Strategy Report*, Washington 2004 and previous years.

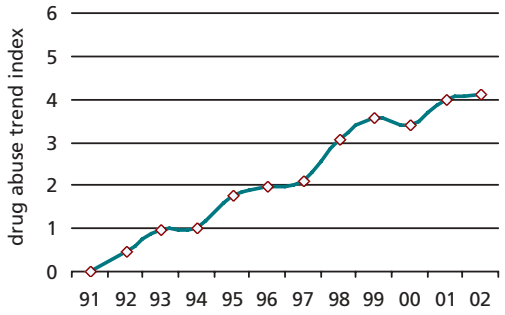
m) Opium production fell by 14% in the Lao PDR in 2003. However, due to differences in survey methodology and some missing districts in 2003, the abuse figures for 2003 are not directly comparable with those reported in previous years. Nonetheless, data are sufficiently robust to indicate that a further decline took place in 2003 as well. (UNODC, Laos Opium Survey 2003, June 2003).

market come from Myanmar (more than 80%). Chinese authorities estimate that some 80% of the opiates produced in the Golden Triangle are exported to China. In addition, the Golden Crescent is emerging as a threat to China. Opiates produced in Afghanistan are considered to be increasingly shipped to China via Central Asia. This may also explain why opiate abuse in China continued to spread despite the fact that opium production in South-East Asia was declining. The number of heroin addicts has been rising, although at a slower pace than the overall increase in the number of registered drug addicts. While in 1997/98 20% of the drug addicts were registered for opium abuse and 80% for heroin abuse, the latter proportion declined to 70% by 2003, reflecting the fact that the number of people registered for other drugs, notably ATS, showed a stronger increase. Despite the strong increase in drug abuse, including opiate abuse over the last decade, the number of opiate addicts in proportional terms - around 0.1% of the general population age 15-64 - is still low compared to other countries and compared to the situation in China at the beginning of the 20th century (even if one takes into account the possibility that the total number of opiate abusers could exceed those officially registered).

… preventing the Drug Abuse Trend Index for Asia from falling

The reported increase from China also meant that UNODC's overall Drug Abuse Trend Index for Asia, weighted by the countries' population, did not fall in 2002, despite the large number of countries showing stable or declining levels of abuse. The rise of the Asian Drug Abuse Trend Index was stronger than in Western Europe but less significant than in Eastern Europe.

Fig. 37: Opiates consumption trend in Asia: based on national experts' perceptions



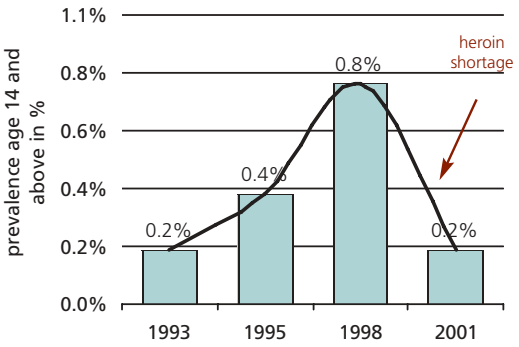
Sources: UNODC, Annual Reports Questionnaire Data, Field Office reports.

OCEANIA

Opiate abuse in Australia has not recovered from the low in 2001

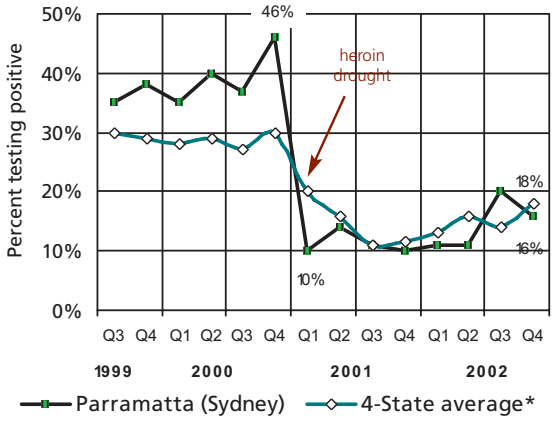
The most significant decline of opiate abuse in recent years was reported from the Oceania region in 2001. It lasted well into 2002 and - according to preliminary data - into 2003 as well. The shortage of heroin in Australia's domestic market was largely the result of successful law enforcement operations in late 2000 which, in co-operation with the authorities of other countries/territories, notably Hong Kong SAR of China, Myanmar and Thailand, dismantled the major heroin trafficking rings that had been supplying the Australian market (Sydney) with heroin from South-East Asia. This supply shortage was reflected in Australia's new Drug Use Monitoring (DUMA) system which tests offenders by means of urine analysis within 48 hours after arrest at a police station. Other indicators corroborated DUMA's findings. Data from the national household survey showed a decline of annual prevalence from 0.8% of the population (age 14 and above) in 1998 to 0.2% in 2001. Overall heroin-related overdoses fell by around 66% in 2001 and by a further 6% in 2002 to the lowest level since the late 1980s. There were some minor substitution effects with regard to cocaine and amphetamines, but most addicts turned to treatment, notably substitution treatment. Initial fears that a heroin shortage could lead more crime, did not materialize. Following a short-term increase, overall crime rates moved downwards rather than upwards.

Fig. 38: Australia: Heroin abuse annual prevalence



Source: AIHW, Statistics on Drug Use in Australia 2002.

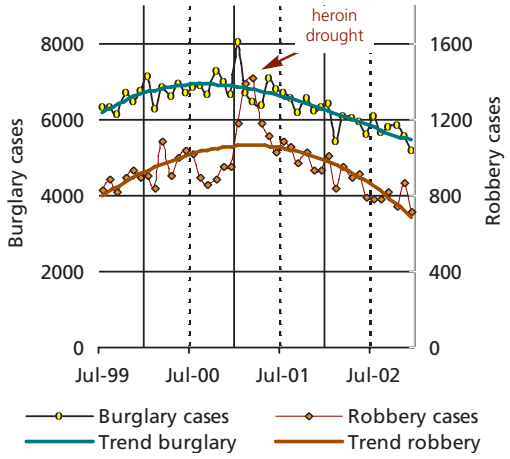
Fig. 39: Australia: Proportion of adult males arrested in Parramatta (Sydney) and in other selected sites* across Australia testing positive for opiates



* unweighted average of quarterly results from 4 sites: Parramatta (New South Wales), Bankstown (NSW), Perth (Western Australia) and Southport (Queensland)

Source: Drug Use Monitoring in Australia (DUMA)

Fig. 40: Crime trends in New South-Wales, Australia, July 1999-Dec. 2002



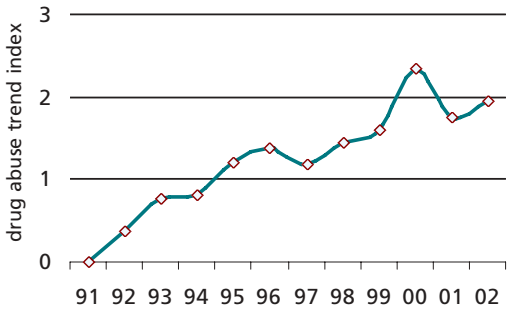
Source: Source: NSW Bureau of Crime Statistics and Research, NSW Recorded Crime Statistics.

AFRICA

Heroin abuse increased in Africa in 2002

Heroin abuse has increased in Africa over the last decade. Following some decline in 2001, abuse was reported to have increased again in 2002. Levels of abuse still seem to be rather low in Africa compared to other regions, mostly due to high prices by local purchasing power standards. Most of the increases in 2002 were reported from countries in Eastern and Southern Africa. Increases in Western Africa were reported by Côte d'Ivoire and Togo and in Northern Africa by Morocco.

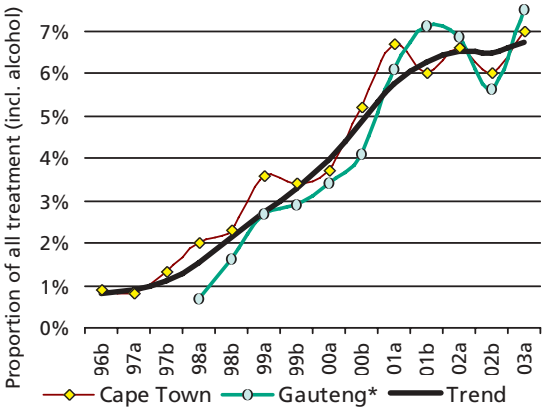
Fig. 41: Heroin consumption trend in Africa (based on national experts' perceptions)



Source UNODC, Annual Reports Questionnaire Data.

Of all African countries, South Africa collects data on drug abuse in the most systematic way. Data collection is undertaken through SACENDU - South African Community Epidemiology Network on Drug Use. Data, based on the primary drug of abuse in treatment admissions, confirm that a strong increase in heroin abuse has taken place in the country since the mid 1990s. Following some signs of levelling off in recent years, a renewed upward trend in treatment demand for heroin abuse was observed in the first two quarters of 2003. In the first half of 2003, more than 7% of all

Fig. 42: South Africa: Proportion of people in treatment for heroin abuse (1996-2003)



* Gauteng: Johannesburg and Pretoria

Source: South African Community Epidemiology Network on Drug Use (SACENDU).

treatment (including alcohol) in Cape Town and in the Johannesburg/Pretoria region (Gauteng) the largest heroin markets of the country - was related to heroin abuse. For South Africa as a whole the corresponding ratio stood at 5.5% in the first half of 2003.

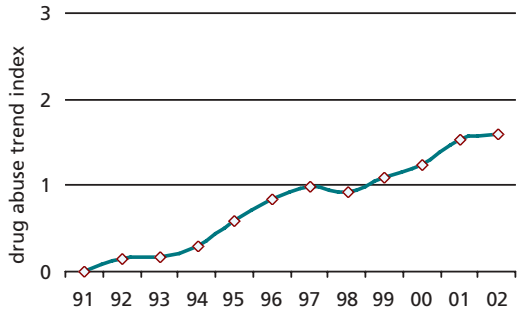
A similar kind of information system is currently being built among the countries of the Soutern African Development Community (SADC Epidemiology Network on Drug Use - SENDU), assisted by UNODC. Results from this monitoring system show that higher proportions of people in treatment for heroin abuse than in South Africa are found in Mauritius (56% in 2002) and in Mozambique (15% in 2002). In both countries the proportion of people treated for heroin abuse declined in 2003 (to 52% in Mauritius and to 11% in Mozambique over the first two quarters of 2003). For other SADC countries no significant levels of heroin abuse were reported from treatment services. Reports from the East Africa Drug Information System (EADIS) identified the emergence of heroin abuse, albeit at low levels, in Uganda, Kenya and Tanzania in recent years.

AMERICAS

Signs of stabilization in 2002

Heroin abuse increased in the Americas over the last decade in 2002. The overall increase over the last decade, as reflected in the Drug Abuse Trend Index was, but showed signs of stablization, however significantly less than in Eastern Europe or Asia.

Fig. 44: Heroin consumption trend in the Americas based on national experts' perceptions

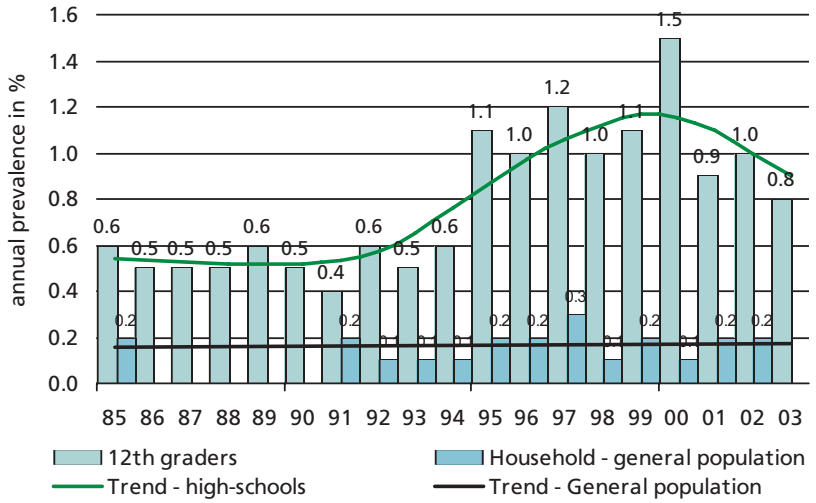


Source UNODC, Annual Reports Questionnaire Data.

Stable/declining levels reported from North America

Heroin abuse was reported to have remained more or less stable in North America in 2002. In the USA, the largest heroin market in the Americas, general population surveys revealed a basically stable level in 2002. Overall heroin abuse, including chronic heroin abuse, is estimated to affect around 1 million people (0.6% of the population age 12-65). Following strong increases in the 1990s the trend among US high school students

Fig. 43: USA: heroin abuse, 1985-2003. Annual prevalence among 12th graders and among the general population (age 12 and above)



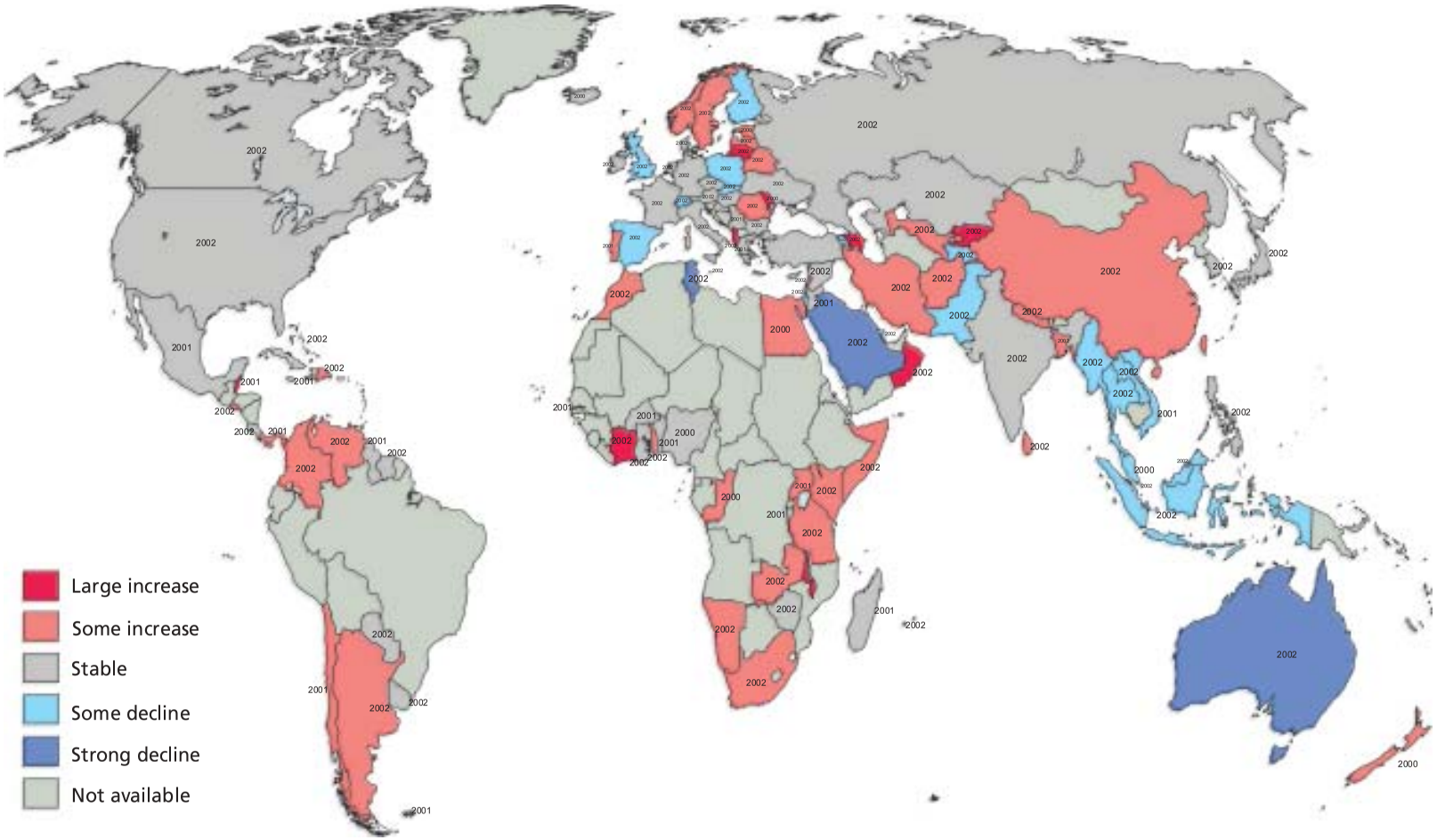
Sources: SAMHSA, 2002 National Survey on Drug Use and Health and previous years (then known as National Household Survey on Drug Abuse) , NIDA, Monitoring the Future 2003 and previous years.

is now falling again. In 2003, the lowest level of heroin abuse among students since 1994 was reported. Heroin related treatment demand continues rising (2.8% in 2002), though at lower rate than over the 1992-2002 period (average annual growth of 5.4%)).

Heroin continues rising in Southern America

In contrast to the situation in North America, a number of countries in South America, the Caribbean and Central America (Argentina, Colombia, Venezuela, El Salvador, and the Dominican Republic) have reported rising levels of opiate use in 2002, reflecting the ongoing production of opium in the region (notably in Colombia and, to a lesser extent, in Peru and in Venezuela). Despite this, overall levels of opiate use remain low in South America, with the exception of a few countries (Brazil, Venezuela and Argentina). A household survey conducted in late 2001 in Brazil revealed a relatively high annual prevalence rate for opiate use of 0.6% among the general population (age 12-65 in cities with more than 200,000 inhabitants). However, it concerned mainly synthetic opioids, diverted from licit channels. Heroin abuse remained low (lifetime prevalence rate of 0.1%; annual prevalence < 0.05%). Annual prevalence of opiate use in Argentina (1999) amounted to 0.14% and lifetime prevalence to 0.5% of the general population (age 16-64). A study conducted in the metropolitan district of Venezuela in 2002 revealed a lifetime prevalence of 0.8% among the population age 8-40, equivalent to a rate of 0.7% among the population aged 15-64.

Map 10: Change in abuse of heroin and other opiates, 2002 (or latest year available)



Sources: UNODC Annual Reports Questionnaires data, National Household Surveys submitted to UNODC, United States Department of State (Bureau for International Narcotics and Law Enforcement Affairs), International Narcotics Control Strategy Report, Law Enforcement Reports, SACENDU (South African Community Epidemiology Network, UNODC, Meetings of Heads of Law Enforcement Agencies (HONLEA), UNODC Opium Surveys.

2.2. Coca / Cocaine market

2.2.1. Production

Table 5. GLOBAL ILLICIT CULTIVATION OF COCA BUSH AND PRODUCTION OF COCA LEAF AND COCAINE, 1990-2003

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
CULTIVATION[1] OF COCA BUSH IN HECTARES														
Bolivia [2]	50,300	47,900	45,300	47,200	48,100	48,600	48,100	45,800	38,000	21,800	14,600	19,900	24,400	23,600
Colombia [3]	40,100	37,500	37,100	39,700	44,700	50,900	67,200	79,400	101,800	160,100	163,300	144,800	102,000	86,000
Peru [4]	121,300	120,800	129,100	108,800	108,600	115,300	94,400	68,800	51,000	38,700	43,400	46,200	46,700	44,200
Total	**211,700**	**206,200**	**211,500**	**195,700**	**201,400**	**214,800**	**209,700**	**194,000**	**190,800**	**220,600**	**221,300**	**210,900**	**173,100**	**153,800**
POTENTIAL PRODUCTION OF DRY COCA LEAF IN METRIC TONS														
Bolivia	77,000	78,000	80,300	84,400	89,800	85,000	75,100	70,100	52,900	22,800	13,400	20,200	19,800	17,100
Colombia	45,300	45,000	44,900	45,300	67,500	80,900	108,900	129,500	165,900	261,000	266,200	236,000	222,100	168,000
Peru	196,900	222,700	223,900	155,500	165,300	183,600	174,700	130,600	95,600	69,200	46,200	49,300	52,500	50,790
Total	**319,200**	**345,700**	**349,100**	**285,200**	**322,600**	**349,500**	**358,700**	**330,200**	**314,400**	**353,000**	**325,800**	**305,500**	**294,400**	**235,890**
POTENTIAL[5] MANUFACTURE OF COCAINE IN METRIC TONS														
Bolivia	189	220	225	240	255	240	215	200	150	70	43	60	60	60
Colombia	92	88	91	119	201	230	300	350	435	680	695	617	580	440
Peru	492	525	550	410	435	460	435	325	240	175	141	150	160	155
Total	**774**	**833**	**866**	**769**	**891**	**930**	**950**	**875**	**825**	**925**	**879**	**827**	**800**	**655**

(1) Potentially harvestable, after eradication.
(2) Source: CICAD and US Department of State, International narcotics Control Strategy Report.
(3) Estimates for 1999 and subsequent years come from the national monitoring system established by the Colombian government with the support of UNODC. Due to the change of methodology, figures for 1999 and after cannot be directly compared with data from previous years.
(4) Since 2000 the results are those of the illicit crop monitoring system established with the support of UNODC
(5) Potential manufacture of cocaine is the amount of cocaine that can be made from coca leaf produced in the country concerned. It does not take into account importation of coca base from other countries.

Global cultivation of coca has reached its lowest level since 1985…

Global coca cultivation continued declining for the third straight year in 2003. The total area under coca cultivation in Colombia, Peru and Bolivia combined declined to 153,800 ha, an 11% decline from 2003 and a 30% decline from the peak of coca cultivation in 1999. As has been the case since 1996, the majority of all coca cultivation (56%) took place in Colombia, 29% took place in Peru and 15% took place in Bolivia.

The largest decrease in coca cultivation took place in Colombia, where coca cultivation declined 16% from 102,000 ha in 2002 to 86,000 ha in 2003. This represents Colombia's third consecutive year of decreasing cultivation, and brings the country back to cultivation levels not seen since 1997. Cultivation in Peru decreased 5.4% to 44,200 ha in 2003. In Bolivia UNODC and the Bolivian Government completed the first national coca survey of the country (previous surveys of Bolivia had only covered Yungas of La Paz) with national estimates compiled from US Government and Bolivian sources. The results of the first national survey revealed that 23,600 ha were under coca bush cultivation, including the12,000 ha permitted by Bolivian Law Number 1008.

Although coca cultivation in 2003 for Bolivia was only about half of the levels reported from other sources in the mid-1990s, there are worrying signs that coca cultivation is on the increase. In the Yungas of La Paz which accounted for 71% of total coca cultivation in the country, coca cultivation increased by 18% as compared to 2002.

In Peru the most important decreases in cultivation took place in the areas of Central Huallaga, where coca cultivation has virtually disappeared, as well as in Aguaytia (-53%). In Alto Huallaga, where 31% of coca is cultivated, cultivation declined a significant 11%. The government estimates that approximately 50,000 households are involved in coca cultivation in Peru.

UNODC's Peru Coca Survey for 2003 attributed the decrease in cultivation to four factors: programmed eradication implemented by the Control and Reduction of Coca Leaf in the Upper Huallaga Office (CORAH) (7,022 ha), the National Commission for Development and Life without Drugs' (DEVIDA) voluntary eradication programme, which includes compensation for farmers (4,290 ha), the abandonment of coca fields by farmers without compensation (possibly to avoid forced eradication) and alternative development programmes.

In Colombia, the most significant reductions in coca cultivation between 2002 and 2003 were found in the departments of Guaviare (-11,218 ha or 41% decrease), Putumayo (-61,666 ha or 45% decrease) and Norte de Santander (-4,471 ha or 44% decrease), while coca cultivation increased in two departments: Nariño (17,628 ha or 17% compared to 2002) and Meta (12,695 ha or 38% compared to 2002). In 2003, the major coca growing departments were, in decreasing order of importance, Nariño, Guaviare and Meta. Together they accounted for 54% of the total coca cultivation. The same three departments accounted for 61% of the aerial eradication efforts.

In Colombia, eradication was the primary reason for the decline in cultivation in 2003. Other factors included abandonment of fields and voluntary eradication. The armed conflict, as well as fuelling coca production in some parts of the country, completely impeded it in others. Moreover, in 2003, there was a slight recovery in Colombia's agricultural sector, which led to an increase in the prices of some key farm products. This also contributed to the decrease in coca cultivation by reducing incentives for coca cultivation.

Sustained eradication efforts in all three countries were amongst the vital factors which perpetuated the downward trend of cultivation. In 2003 the Government of Bolivia reported the eradication of 10,100 ha of coca fields, mainly in the Chapare region, sustaining a level of eradication which has occurred since 1998. The Peruvian Government reported the eradication of 11,312 ha of coca fields, the second highest level in 20 years. Of this total, 7,002 ha were eradicated by CORAH and 4,290 ha were voluntarily eradicated through programmes promoted by DEVIDA. In Colombia, the decrease in coca cultivation in Arauca, Guaviare, Putumayo and Norte de Santander could be attributed to a large extent to the aerial eradication campaigns that have intensified considerably since 2002 in these four departments. Putumayo alone accounted for 76 % of the national eradication records. In total, about 136,828 ha were eradicated in Colombia 2003, which is the highest level of eradication yet.

Reducing the world's potential manufacture of cocaine to its lowest level since 1989…

The potential production of cocaine reached 655 metric tons in 2003, down from 800 metric tons in 2002. Potential cocaine production in Peru amounted to 155 metric tons in 2003, and to 60 metric tons in Bolivia. In 2003 the global share of cocaine production was

slightly redistributed between the three countries with Colombia's share of cocaine production falling from 75% to 67%. Peru's share amounted to 24%, and Bolivia's to 9% of cocaine production.

In Peru, the research carried out by Peru's Tropical Crop Institute in 2003 supports reports that farmers are improving coca yields on existing plots instead of increasing the surface of their cultivation. Between 2001 and 2003 the average yield of coca crops in the Upper Huallaga rose from 500 kg/ha/year to 800/kg/ha/year (four harvests per year). At the country level, the gross potential farm-gate value of the dry coca leaf production harvested in 2003 amounted to US$112 million. Considering that 50,000 households cultivate coca in Peru, discounting maintenance costs, the net income per household derived from the sale of coca leaf is around US$1,344 per year.

In Bolivia, where the law allows for coca production for traditional use, the total coca leaf production amounted to 28,300 metric tons, of which 17,100 metric tons were estimated to have been available for cocaine production. The total gross potential farmgate value of coca leaf production in Bolivia in 2003 is estimated to be US$153million, equivalent to 2% of the country's GDP or 13.4% of the value added of the (licit) agricultural sector. The gross income from coca leaf production amounted to US$500 per capita (coca growers and non-growers) in the coca producing regions in 2003. The overall (licit) GDP per capita in Bolivia was around US$880 in 2003. 3.8% of the country's total population live in the coca producing regions.

UNODC has not yet conducted a scientific and comprehensive study on coca leaf and cocaine productivity in Colombia, but information gathered from other sources, enabled the estimation of the potential cocaine production in Colombia at about 440 metric tons. Using the average price for coca base of US$793/kg in 2003, and assuming a one to one conversion rate between cocaine and coca base, the total farmgate value of the 440 metric tons of coca base produced in Colombia in 2003 would amount to about US$ 350 million.

However, there is some sign of shifting cultivation patterns and improved techniques…

UNODC's surveys consistently reveal signs that farmers are improving and adapting their cultivation techniques, both to increase yield and to hide crops. In Bolivia, for example, fertilizers and pesticides have been widely used for coca cultivation in the Yungas of La Paz, but it is only in 2003 that the irrigation of coca fields has become common.

The interpretation of satellite images in Bolivia revealed that most of the new coca fields were established to the detriment of the primary forest. Farmers are also interspersing their coca crop with other licit crops, such as rice, cassava, pineapple and citrus trees. Farmers time the addition of the coca crop to the licit crop carefully, when the licit crop is at about half of its maturity. While this technique is neither new nor complex, it may be growing more common as a method of avoiding eradication. This, for example, is done in Chapare in Bolivia where most of the eradication takes place.

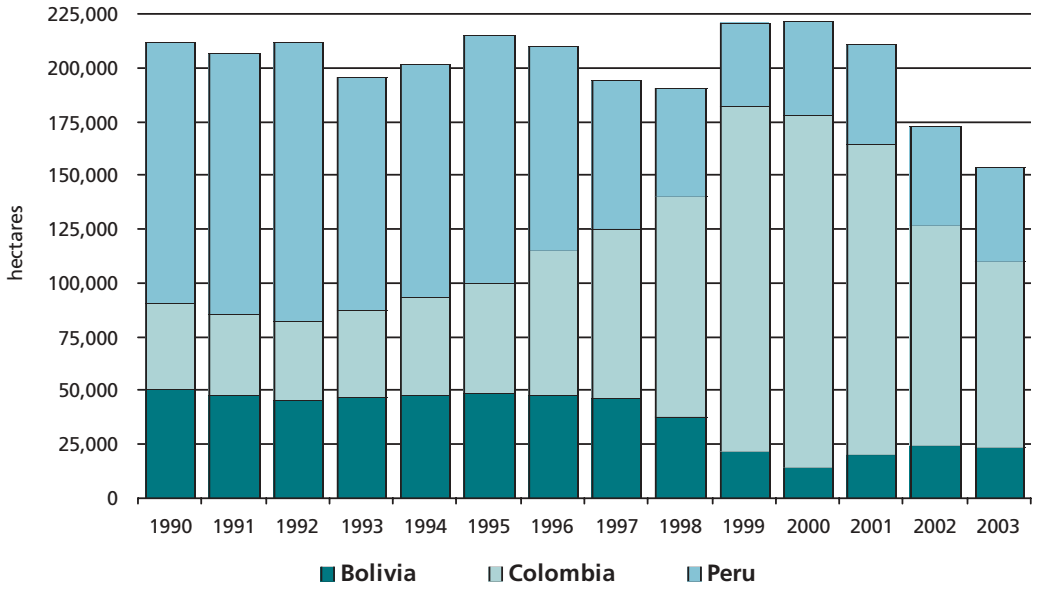
In Peru, there has been some shifting in cultivation, with Apurimac Ene replacing Alto Huallaga as the area with the largest area under coca cultivation. Although cultivation is declining in Alto Huallaga, it remains high. UNODC's alternative development programmes in the region estimate that 80% of farmers income in the area of Mozon in Alto Huallaga comes from coca cultivation. In Mozon, coca cultivation is concentrated in the steep slopes of the mountains, while licit crops tend to be cultivated in the more productive soils of the lower valleys. The insecurity and violence brought about by organizations of coca farmers in Mozon were constant in 2003, especially in the higher areas where the coca cultivation is concentrated. Mozon accounts for 71% of the cultivation in the Alto Huallaga area, in the other areas agriculture is more diverse and coca cultivation accounts for only a marginal fraction of farmer's income. There are both direct and indirect indicators that farmers are abandoning their coca fields in order to avoid eradication. Once the risk of eradication disappears, abandoned coca fields can be quickly reactivated at a fraction of the cost of establishing a brand new field.

Cultivation in Apurimac-Ene, which now accounts for the largest portion (32%) of coca cultivation in Peru, has been increasing since 1997. It is thought that the increase is due mainly to the rehabilitation and improvement of abandoned coca fields, rather than the establishment of new crops. UNODC's survey has found that it costs approximately US$ 400 to rehabilitate an abandoned coca field, with the first harvest ready after 3 or 4 months, whereas, the cost for establishing a new hectare ranges from US$1,500 to US$1,800 and the first harvest is produced only after 9 to 15 months.

In Colombia, coca cultivation is characterized by a high degree of mobility, both within and across department boundaries. With cultivation shifting tactically to avoid

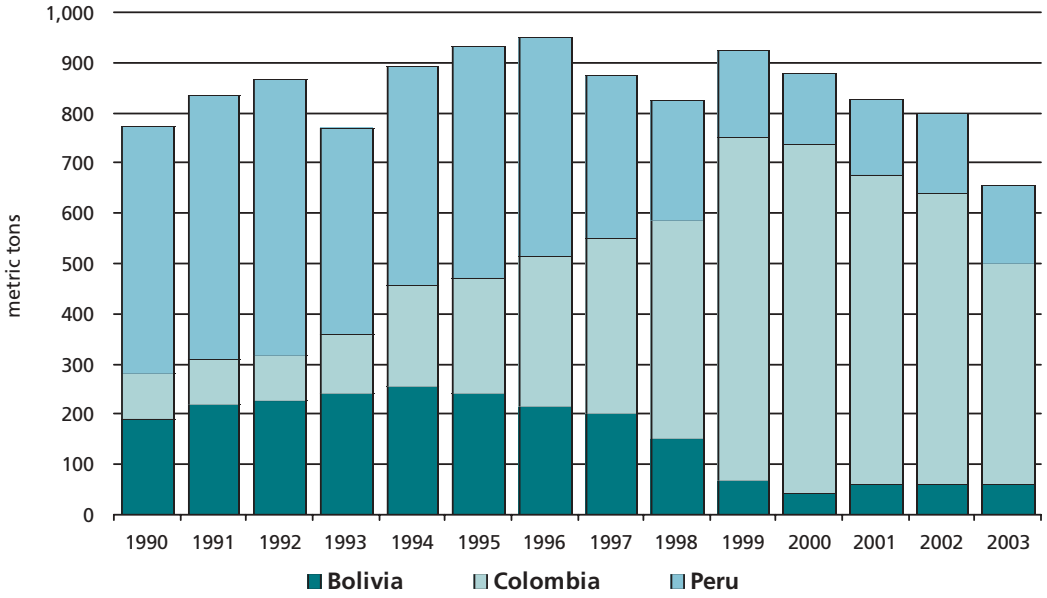
eradication and to exploit new growing areas. In Putomayo cultivation declined 45%. Declines corresponded roughly to aerial spraying activity and voluntary eradication. Unlike in other parts of the country, this was not counterbalanced by the establishment of new fields or the reseeding of sprayed areas. A high degree of mobility of coca cultivation was noted within the region of Guaviare, which in the 90's, was the largest coca growing area of Colombia, until most of the coca migrated to Putumayo at the end of the decade and then to the Nariño area. Guaviare remains one of the most important coca growing regions in Colombia, despite the 41% decrease in the level of coca cultivation between 2002 and 2003. Nariño experienced a 17% increase in cultivation , perhaps as a consequence of the significant reduction in coca cultivation in Putumayo, which drove landless labourers to move to Nariño. Other factors would have included violence, insecurity, proximity of the sea and international trafficking routes.

Fig. 45: Global coca bush cultivation, 1990-2003 (in ha)

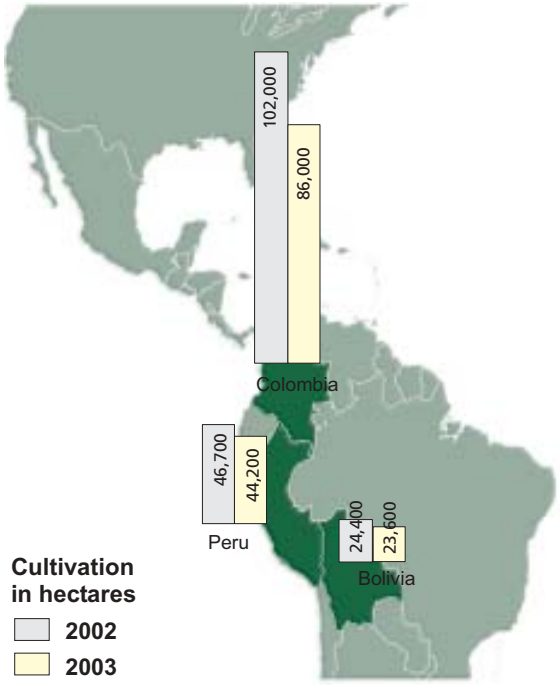


Estimates for Colombia for 1999 and subsequent years come from the national monitoring system established by the Colombian government with the support of UNODC. Due to the change of methodology, figures for 1999 and after cannot be directly compared with data from previous years.

Fig. 46: Potential cocaine production, 1990-2003 (metric tons)



Map 11. Coca bush cultivation (2002 - 2003)



Map 12. Potential cocaine production (2002 - 2003)

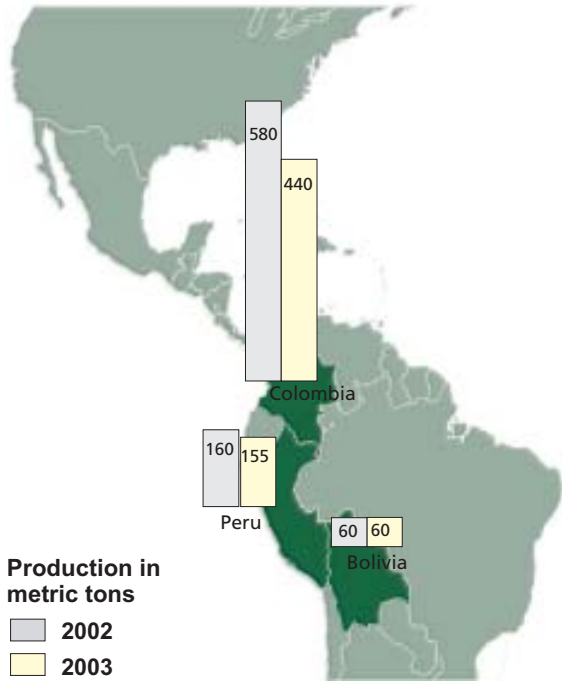
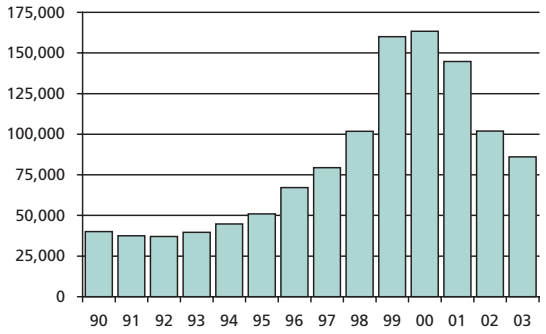
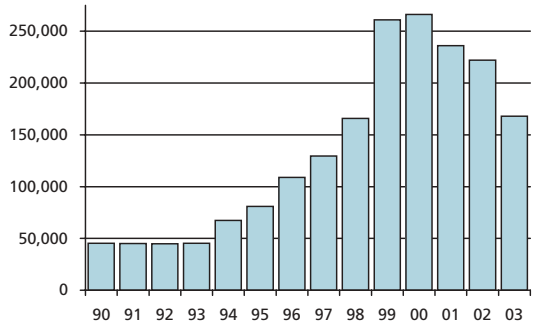


Fig. 47.
Annual coca bush cultivation and cocaine production in main producing countries, 1990 - 2003

COLOMBIA - COCA BUSH CULTIVATION, 1990 - 2003 (ha)

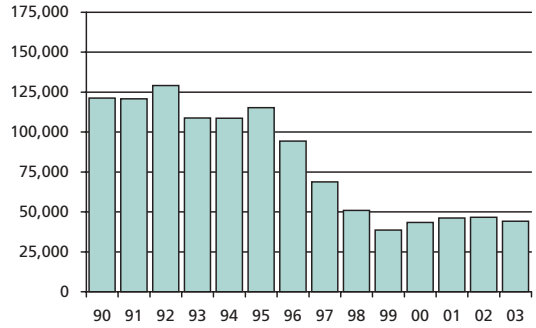


COLOMBIA - POTENTIAL COCAINE PRODUCTION, 1990 - 2003 (mt)

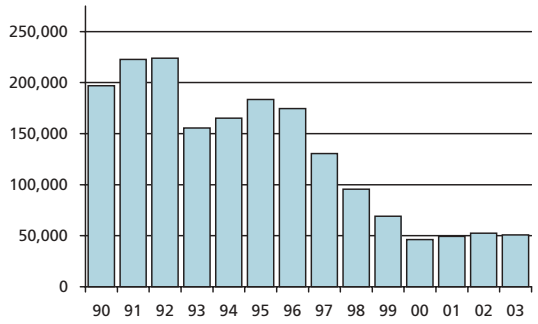


Estimates for Colombia for 1999 and subsequent years come from the national monitoring system established by the Colombian government with the support of UNDCP. Due to the change of methodology, figures for 1999 and after cannot be directly compared with data from previous years.

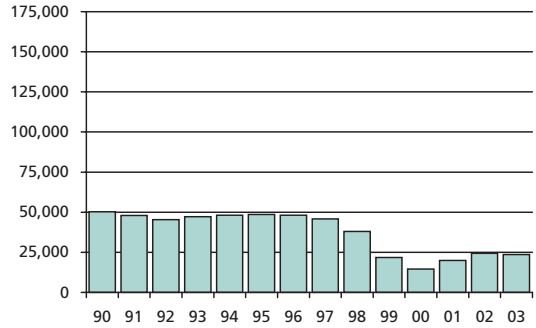
PERU - COCA BUSH CULTIVATION, 1990 - 2003 (ha)



PERU - POTENTIAL COCAINE PRODUCTION, 1990 - 2003 (mt)



BOLIVIA - COCA BUSH CULTIVATION, 1990 - 2003 (ha)



BOLIVIA - POTENTIAL COCAINE PRODUCTION, 1990 - 2003 (mt)

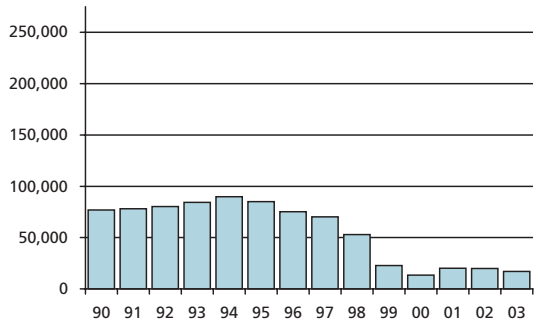


Fig. 48: Coca bush cultivation (in % of global total)

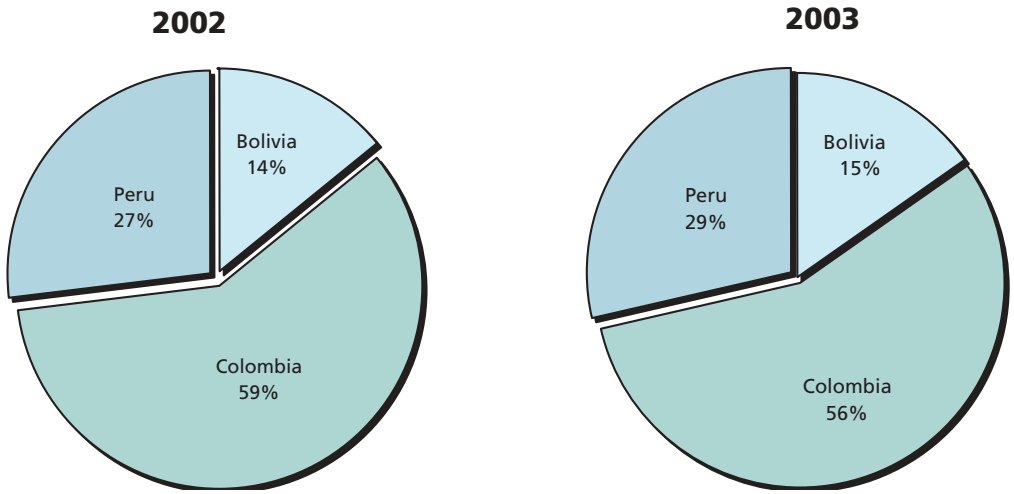


Fig. 49: Potential cocaine production (in % of global total)

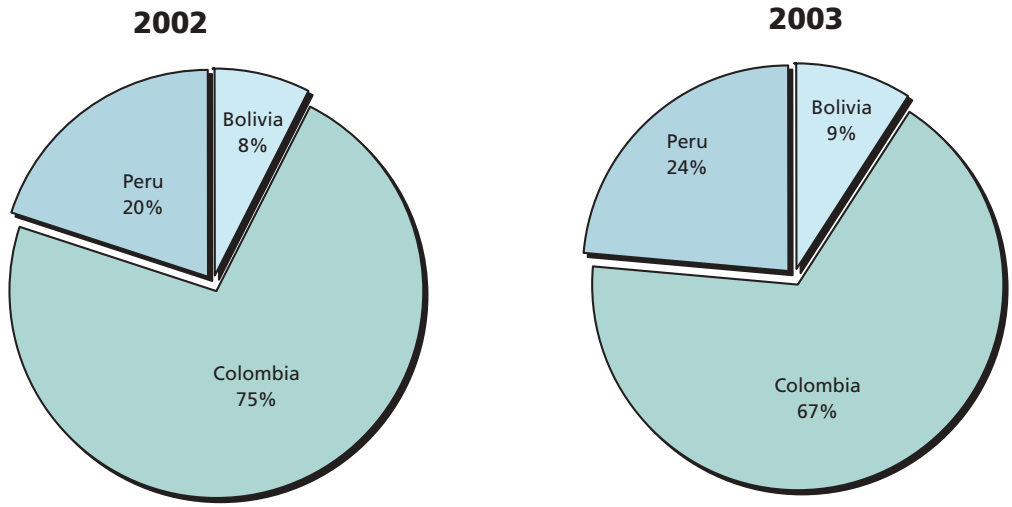
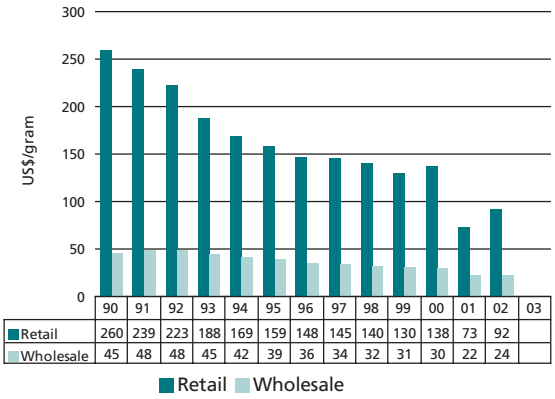
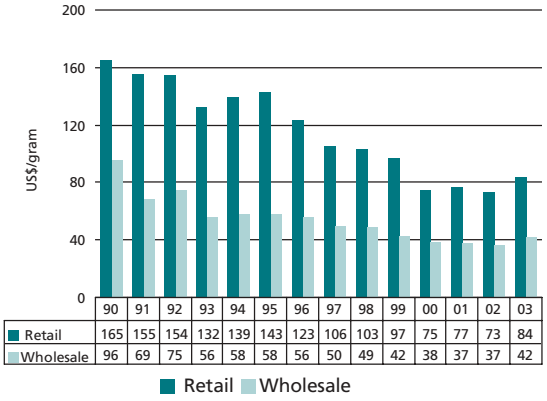


Fig. 50: USA: Cocaine retail and whole sale prices, 1990-2002 (US$/gram)



	90	91	92	93	94	95	96	97	98	99	00	01	02	03
Retail	260	239	223	188	169	159	148	145	140	130	138	73	92	
Wholesale	45	48	48	45	42	39	36	34	32	31	30	22	24	

Fig. 51: EUROPE: Cocaine retail and wholesale prices, 1990-2003 (US$/gram)



	90	91	92	93	94	95	96	97	98	99	00	01	02	03
Retail	165	155	154	132	139	143	123	106	103	97	75	77	73	84
Wholesale	96	69	75	56	58	58	56	50	49	42	38	37	37	42

Fig. 52: Wholesale cocaine prices in Europe and the USA, 1990-2003 (US$/gram)

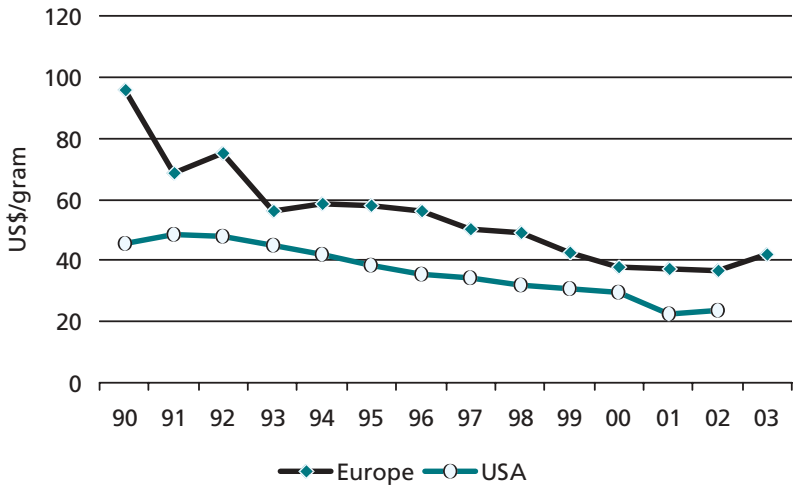


Fig. 6: Reported eradication of coca bush, in ha

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Bolivia	2,400	1,100	5,493	7,512	7,000	11,620	15,353	7,653	9,395	11,839	10,089
Colombia	946	4,904	25,402	23,025	44,123	69,155	44,157	61,574	95,898	126,933	136,828 *
Peru		240	7,512	7,512	3,462	17,800	13,800	6,200	3,900	7,000	11,312

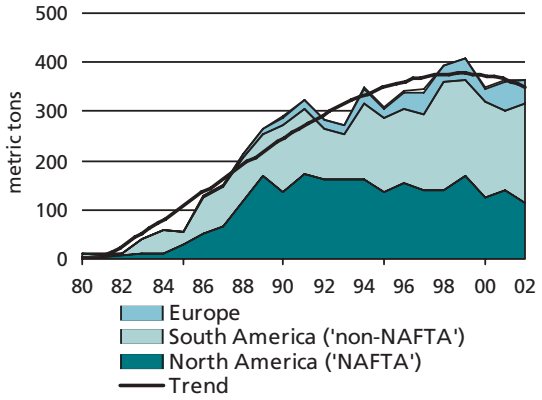
* Represents gross annual spraying area (aerial and manual). It does not take into account the effectiveness of spraying nor the fact that some spraying paths can overlap, which explains that eradicated areas are larger than cultivated areas. Coca cultivation estimates presented in this publication are net, i.e. post-eradication.

2.2.2. Trafficking

The cocaine seizure trend was stable in 2002

Cocaine seizures remained stable in 2002, and were some 10% less than in 1999, the latest peak year of global cocaine production. After having increased dramatically, in tandem with cocaine production, in the 1980s, cocaine seizures have been stable to declining in recent years, reflecting the global production trend.

Fig. 53: Global cocaine seizures 1980-2002



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

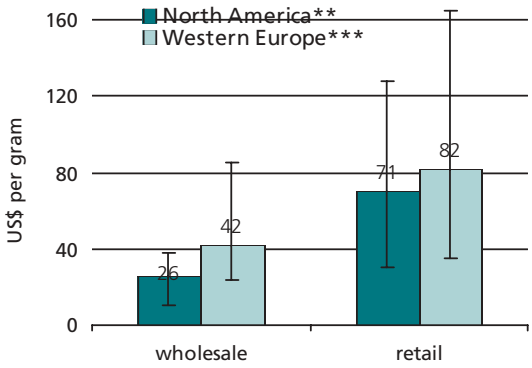
Trafficking remains concentrated in the Americas and, to a lesser extent, in Western Europe

The bulk of cocaine continues to be seized in the Americas. In 2002, 55% of all cocaine seizures were made in South America (including Central America and the Caribbean), 32% in North America and 13% in Europe (of which 99% were in Western Europe).

While the trend has been stable/declining in North America, increases have been reported from Western Europe over the last decade

The most striking trend in recent years has been the strong increase in European cocaine seizures, reflecting underlying shifts in trafficking. Although Europe's record cocaine seizures of 2001 were not repeated in 2002, the proportion of cocaine seized in Europe (13% of global seizures in 2002) was substantially higher than in 1990 (6%) or in 2000 (8%). The increase in trafficking went in parallel with rising levels of cocaine use in a number of West European countries. Traffickers appear to turning away from the saturated and high-risk North American market to the lucrative, and possibly less risky, West European market.

Fig. 54: Average* cocaine prices in North America and Western Europe in 2002



* Unweighted average of reported prices; error bars indicate minimum and maximum prices.
** USA and Canada.
*** 21West European countries.

Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Table 7. Distribution of cocaine seizures by region in % (1985-2001)

	1985	1990	1995	2000	2001	2002
Americas	97.80%	94.00%	92.80%	91.10%	83.00%	87.10%
Europe	2.10%	5.90%	7.00%	8.30%	16.30%	12.70%
Asia	0.09%	0.04%	0.04%	0.03%	0.32%	0.06%
Oceania	0.03%	0.04%	0.11%	0.41%	0.32%	0.03%
Africa	0.00%	0.02%	0.08%	0.12%	0.13%	0.15%
Total	100%	100%	100%	100%	100%	100%

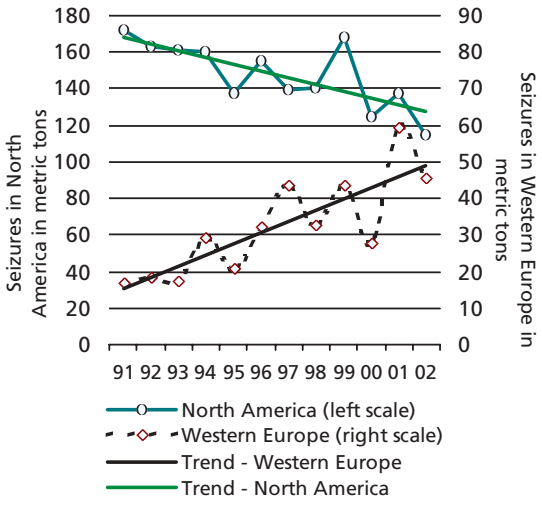
Source: UNODC, Annual Reports Questionnaire Data / DELTA

A comparison of cocaine wholesale and retail prices suggests that, from a trafficker's point of view, the European market is more attractive than the basically stable US market. The difference, however, has become less pronounced over the last few years.

Short-term trends are, however, similar in North America and Western Europe…

In both North America and Western Europe cocaine seizures increased in 1999, fell in 2000, increased in 2001 and fell again in 2002. The decline in 2002 seems to have been a consequence of two factors occurring in parallel: an increase in coca eradication and more enforcement action against cocaine trafficking in the source countries. The total area under coca cultivation across the Andean region fell by 18% in 2002. As most of the eradication took place towards the end of the year, the actual reduction in cocaine manufactured was much less (-3%). More enforcement in South America, however, led to cocaine seizures rising by more than a fifth in 2002, which, in turn, had an impact on global cocaine availability. Data collected among US students also suggests that cocaine availability declined by 12% between 2001 and 2003.

Fig. 55: Cocaine seizures: North America and Western Europe

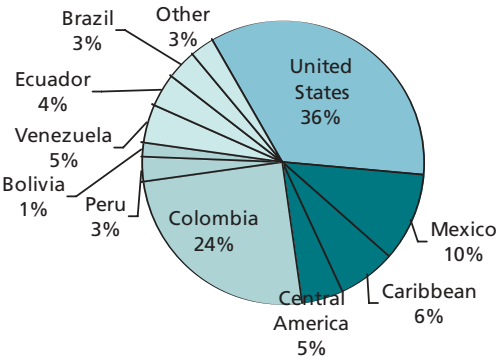


Source: UNODC, Annual Reports Questionnaire Data.

… a consequence of strongly rising cocaine seizures in the source countries in 2002

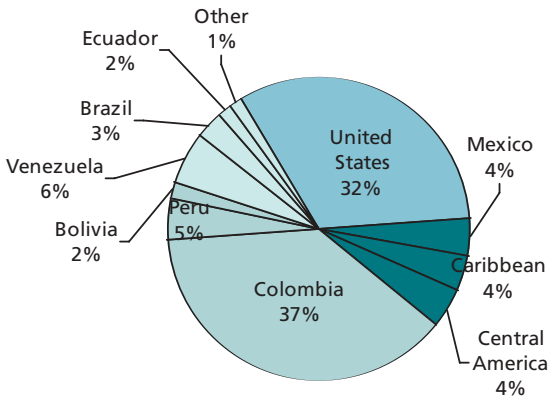
In the Americas, the relative importance of seizures in the three source countries (Colombia, Peru and Bolivia) increased significantly in 2002. In 2001 cocaine (including cocaine base) seizures in the three countries accounted for 28% of all cocaine seizures in the Americas; in 2002 this proportion rose to 44%. Seizures in Colombia were the largest worldwide, even exceeding those in the USA in 2002. Some of the seizures were related to a large-scale destruction of cocaine manufacturing capabilities. Colombia dismantled 1,273 coca base, 23 cocaine paste and 138 cocaine HCL laboratories, which is by far the largest number of cocaine laboratories destroyed worldwide. As a result of these events, seizures declined in the transit countries (notably the Caribbean, Central America and Mexico) and the main consumer markets of North America (USA and Canada) and Europe.

Fig. 56: Cocaine seizures in 2001 in the Americas (N = 303 tons)



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Fig. 57: Cocaine seizures in 2002 in the Americas (N = 316 tons)



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

The main trafficking route continues to run from Colombia to the USA

The world's main cocaine trafficking route runs from Colombia to the USA. The cocaine is smuggled through neighbouring countries, the Caribbean (on the so called go-fast boats), Central America, or Mexico. Some of it goes directly to the USA, either by air or by boat to the east or west coast. Venezuela, for instance, reported that 72% of the cocaine it seized in 2002 was destined for the USA, 14% for Mexico and the rest for Europe (mainly the Netherlands). Central American countries (Guatemala, Honduras) report that 80-85% of their seized cocaine was destined for the USA. The Caribbean countries report that 60-100% of the cocaine transiting their territories was for the USA. The Mexican authorities report that 90% of the cocaine they seized was meant to go to the USA.

Colombian criminal organizations are still heavily involved in smuggling cocaine from Colombia to the United States. These organizations also control much of the wholesale-level distribution in the North-East of the USA. Over the last decade, however, Mexican trafficking organizations have taken an increasing portion of the market, smuggling the drug from Mexico across the land border and controlling distribution networks throughout the West and the Mid-West of the USA. The primary entry points for cocaine in the USA are: Miami, Houston and New Orleans for maritime shipments and the South-West border states for land shipments. Chicago has emerged as one of the key distribution hubs for Mexican trafficking organizations, while New York remains under the control of Colombian organizations.

The situation is different for many of the countries south of Colombia. The dismantling of cocaine laboratories reveals that cocaine-manufacturing capacities exist not only in Colombia, but also in Bolivia, Peru, Argentina, Chile and Venezuela. In Peru and Bolivia most of the cocaine is of domestic origin (100% in Peru, 78% in Bolivia, with the remaining 22% of the cocaine seized in Bolivia originating in Peru in 2002). The authorities in Chile report that 43% of the cocaine they seized came from Peru and 28% from Bolivia. In Argentina, 60% of the cocaine is believed to have come from Bolivia, 15% from Peru and only 25% from Colombia in 2002. In Uruguay the proportion of Colombian cocaine is apparently even lower: 70% of the cocaine is reported to come from Bolivia, 15% from Peru and 15% from Colombia.

In contrast, Colombian cocaine dominates the markets to the east of Colombia. In 2002, Venezuela reported that all cocaine seized originated in Colombia. Brazil estimated that about 70% of the cocaine originated in Colombia, 20% in Bolivia and 10% in Peru (2000). In Suriname about 60% of the cocaine seized in 2002 could be traced back to Colombia, 20% to Venezuela and 20% to Brazil. Suriname is one of the few countries in South America where the bulk of the cocaine seized was not going to the USA (20%) but to Europe (Netherlands 80%).

Spain and the Netherlands continue to be Europe's main entry points for cocaine…

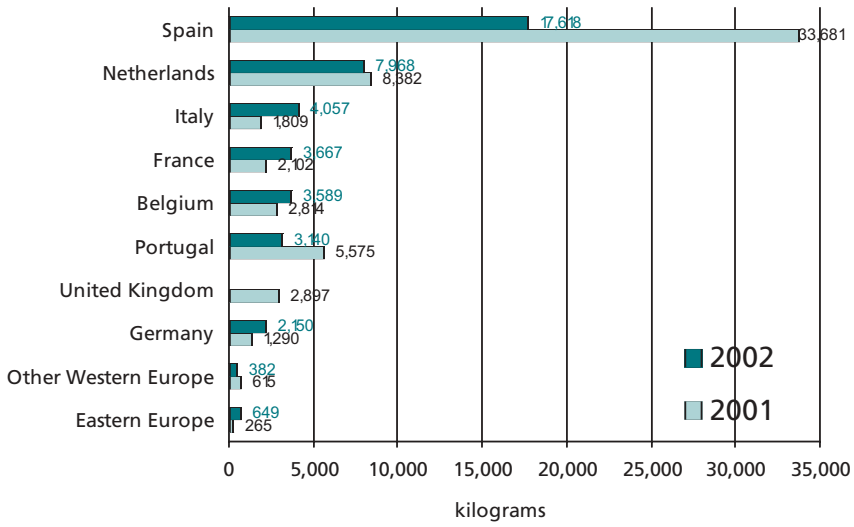
Throughout the last decade Spain and the Netherlands reported the highest cocaine seizures in Europe; both were also mentioned as important transshipment points by most other European countries. Data for 2001 and 2002 confirmed this pattern. From exceptionally high levels in 2001, cocaine seizures in Spain declined in 2002 to levels reported in the second half of the 1990s. In the Netherlands, traditionally the second largest entry point, seizures declined slightly in 2002. Measures taken since early 2002 reduced the number of cocaine couriers coming into Amsterdam airport. Despite these declines the two countries together accounted for more than half of all European cocaine seizures in 2002. Significant increases in cocaine seizures in 2002 were reported from Italy, France, Belgium, Germany and - starting from low levels - the countries of Eastern Europe. Italy recorded the third largest cocaine seizures in Europe in 2002, slightly ahead of France, Belgium and Portugal[n].

… but direct cocaine imports to other countries are rising

Direct overseas imports of cocaine play an important role in supplying the European market. South American groups are often involved in these shipments. Colombia, followed by Peru and Bolivia, are the most frequently mentioned source countries. Venezuela, Brazil

n) At the time of writing, these data do not include the UK as the country has not yet reported 2002 seizure data. If it is assumed that seizures remained roughly stable between 2001 and 2002, the UK's cocaine seizures would be slightly less than those reported by Portugal.

Fig. 58: Cocaine seizures in Europe in 2001 and 2002



Source: UNODC, Annual Reports Questionnaire Data / DELTA

and, to a lesser extent, Ecuador, Suriname, Aruba, the Netherlands Antilles and Jamaica have been mentioned as significant overseas transit countries. Along with Spain (reporting cocaine imports from all three coca producing countries) and the Netherlands (often obtaining cocaine via Suriname and the Netherlands Antilles), significant direct imports from South America in 2002 were also reported from Italy (from Colombia and Venezuela), France (from Colombia and Peru), Belgium (from Colombia) and Germany (from Colombia and Ecuador). In most cases the role of the South-American trafficking groups stops once the cocaine has entered Europe.

Trafficking across countries within Europe is increasing

Cocaine trafficking across countries within Europe is increasing. Most of the cocaine seized in Italy transited Spain or the Netherlands. The cocaine seized in the UK is increasingly transiting Spain and France, following some successes in dismantling networks that shipped it directly from South America and the Caribbean. French authorities reported that significant amounts of the cocaine found on their market usually came through the Netherlands; they also found that 44% of the cocaine they seized in 2002 was actually destined for the Netherlands. Belgium reported that only 5% of the cocaine seized was for the local market; 30% was destined for the Netherlands and the rest for other EU countries. Germany reported that significant amounts entered the country via the Netherlands. About two thirds of the cocaine seized in Germany in 2002, however, was actually destined for Spain, with much of the remainder intended for Italy. Austria reported that cocaine entered its territory via Germany and via Serbia & Montenegro and that most of it was destined for Italy and the Netherlands.

Prior to their entry into the EU, some of the new accession countries had already been integrated into Pan-European trafficking networks. There have been direct shipments of cocaine from South America to these countries for re-export to other European countries. In addition, the Polish authorities mentioned Turkey as an important transit country for cocaine found on their market, destined for Germany, the Netherlands and the UK. The Czech Republic reported that its seized cocaine frequently transited France and the Netherlands with the final destination being Germany. Hungary reported imports of cocaine via Austria, the Netherlands and Spain, for final destinations in Italy.

These trafficking patterns indicate that trafficking routes within Europe have become highly diversified and are now far less predictable than in previous years. Another feature, reported from several countries of continental Europe, has been the increasing importance of criminal groups of West African origin in the local distribution of cocaine (and other drugs). In the UK groups originating in the Caribbean continue to play a dominant role.

Some trafficking to Europe is via Africa

Between 1999 and 2002, there were a number of reports from several African countries, including Nigeria, Togo, Ghana, Gambia, the Republic of South Africa, Zimbabwe, Swaziland, Tanzania, Kenya, and Uganda, that South American cocaine was being transshipped via their territory to Europe. The large number of countries reporting seizures of cocaine in Africa indicates that trafficking in cocaine is already widespread. From 1992-2002, 52 African countries reported seizures of cocaine, up from 24 countries over the 1980-1990 period. The largest cocaine seizures over the 2000-2002 period were reported from South Africa and Nigeria. While they declined in South Africa in recent years, they increased in Nigeria.

Cocaine trafficking in Asia remains limited

The trafficking of cocaine in Asia is still at a low level (0.1% of global seizures in 2002). The number of Asian countries reporting cocaine seizures rose, however, from an average of 10 in the 1980s to 15 in the 1990s and 18 in 2002. Of all the cocaine seized in Asia in 2002, 70% was in the Near and Middle East, notably Israel, Syria and Lebanon. Japan and Thailand, followed by Hong Kong SAR of China, and the Philippines reported the highest cocaine seizures in East & South-East Asia. There were also few attempts to manufacture cocaine in the Asia region. Hong Kong SAR of China dismantled two cocaine-manufacturing laboratories in 2001 and another two in 2002. One cocaine-manufacturing laboratory was dismantled in Thailand in 2001.

Cocaine seizures declined in Oceania in 2002

Cocaine seizures in Oceania fell by some 90% in 2002 (after having grown strongly since 1999), largely reflecting declining seizures in Australia, the main cocaine market in the region. Most of the cocaine in 2002 was reported to have been shipped to Australia from Peru, sometimes via Argentina. Smaller amounts were shipped to Australia also via the UK and via the USA. The cocaine market within Australia is largely concentrated in New South-Wales, particularly in Sydney.

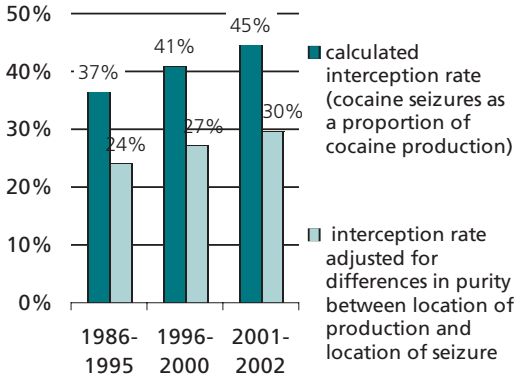
Despite the decline, cocaine prices and purities remained basically stable over the first two quarters of 2002 compared to previous quarters. This suggests either that cocaine seizures in Oceania only amount to a small fraction of supply and that changes do not have a measurable impact, or that the fall in seizures was prompted by a decline in supply and demand, leaving prices unchanged. The analysis of blood test results of police detainees seems to lend some support to the second hypothesis, that the cocaine market actually declined in 2002. Results from selected locations of Sydney (Bankstown and Parramatta) show that 18%-20% of police detainees tested positive for cocaine in the third and fourth quarters of 2001. By the third quarter of 2002, this rate had fallen to around 1.5%[o]. What prompted this shift is still not entirely clear.

Cocaine interception rates continue rising

Over the last two decades interception rates for cocaine increased, from 37% of the cocaine produced over the 1986-95 period to 45% over the 2001-2002 period. This suggests that law enforcement has become more effective.

The absolute level of the calculated interception rate could be misleading, however, because it implicitly assumes that cocaine has the same level of purity at the production and the seizure stages. This is not the case in reality: cocaine is frequently produced at purity levels of around 90%, while purity levels found in seizures fluctuate, on average, around 60%[p]. Based on these considerations, the purity adjusted interception rate of cocaine in 2001-2002 is estimated to have been around 30%, up from less than 25% over the 1986-95 period.

Fig. 59: Cocaine interception rate

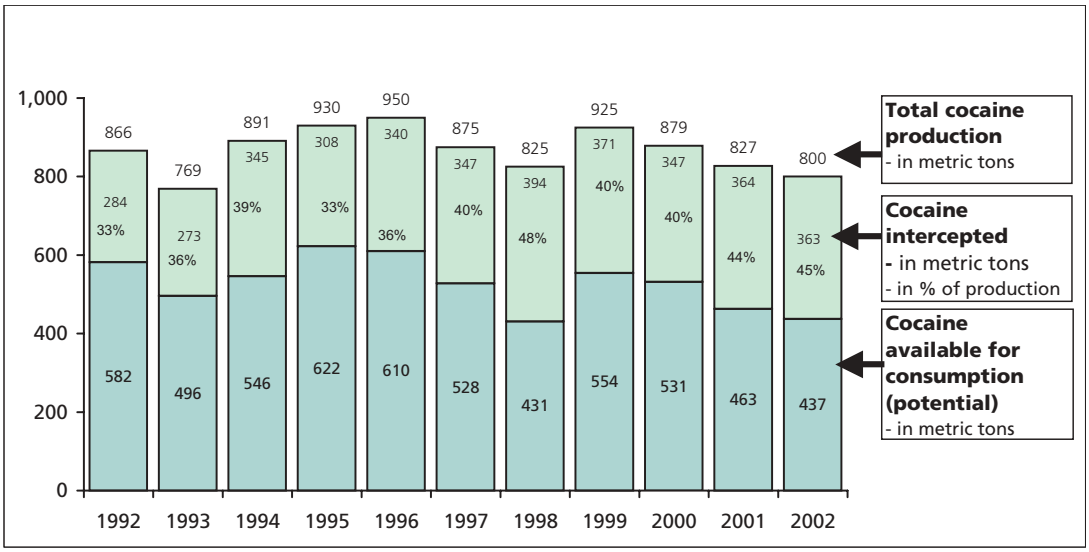


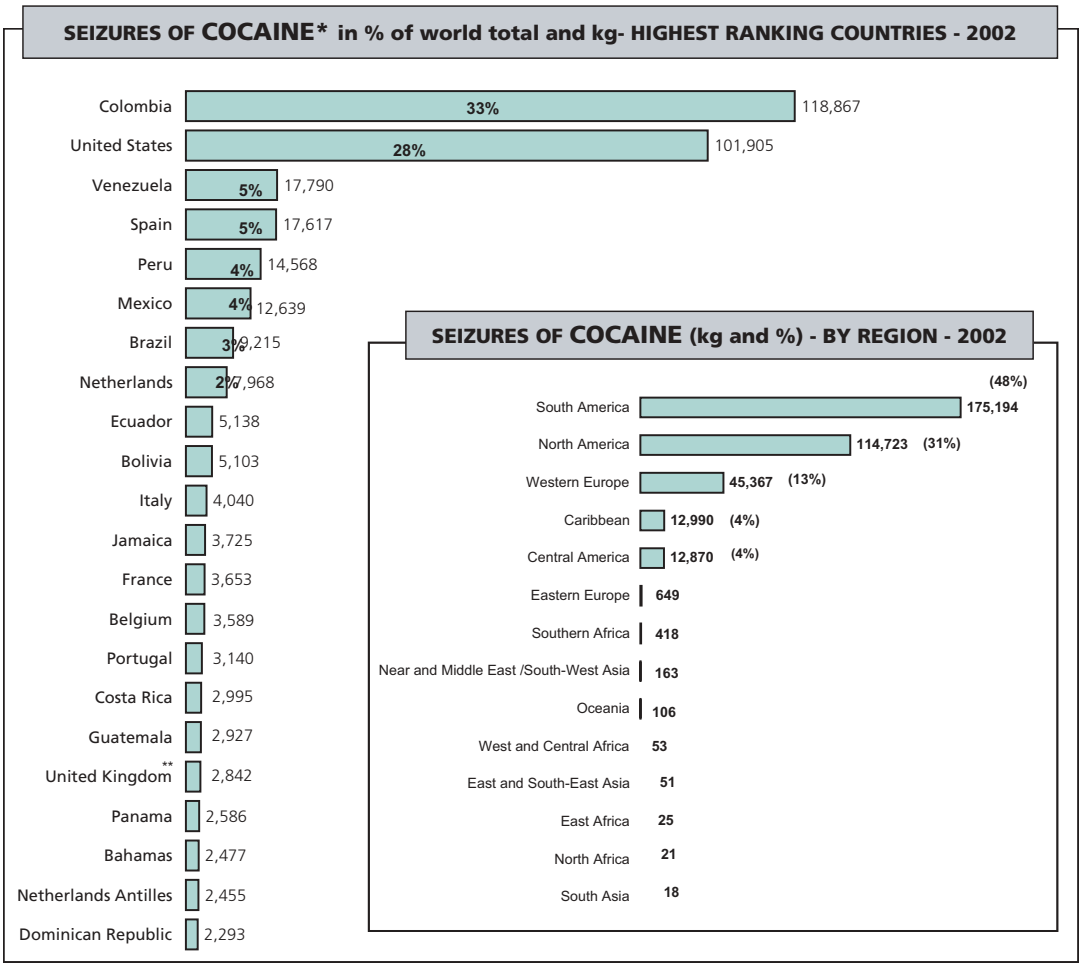
Source: UNODC, Annual Reports Questionnaire Data / DELTA.

o) Australian Institute of Criminology, Drug Use Monitoring in Australia (DUMA), Drug Use Amongst Police Detainees.

p) The US reported that the purity of cocaine found on their market was around 56% at the retail level and 69% at the wholesale level in 2002. Similarly, the UK Customs and Excise reported that they seized cocaine at purity levels around 70% while the police seized it at average purity levels of around 50% in 2002.

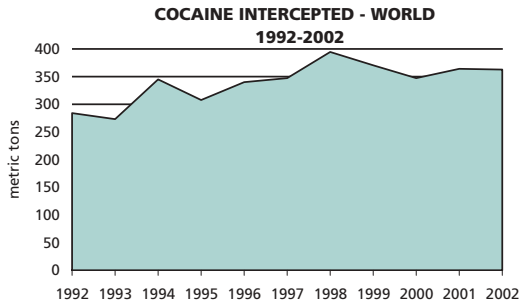
Fig. 60: Global illicit supply of cocaine 1992 - 2002

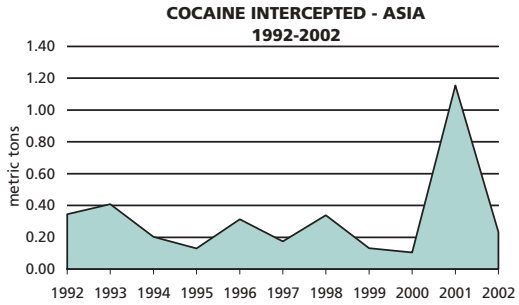


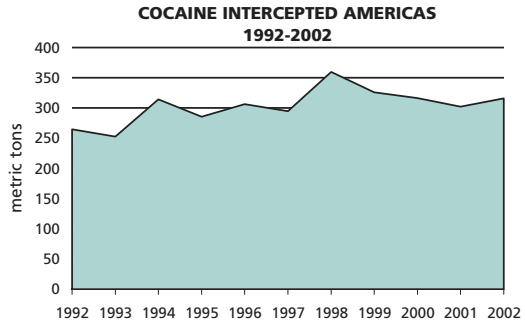


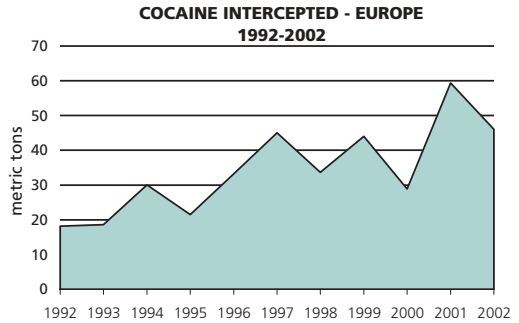
*excluding seizures in liquid form
**data refer to 2001.

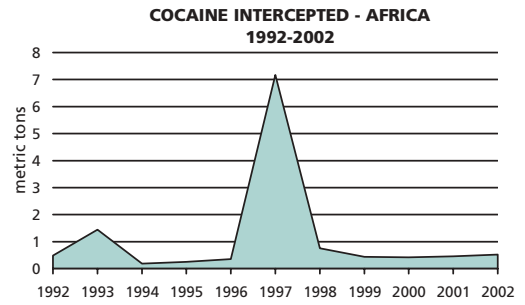
Fig. 61: Cocaine interceptions

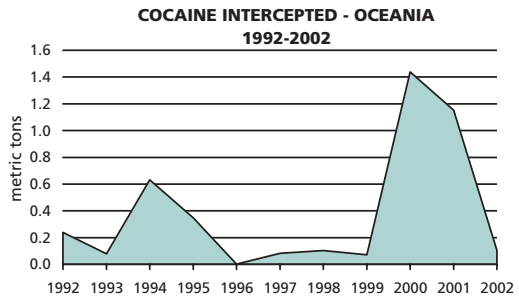




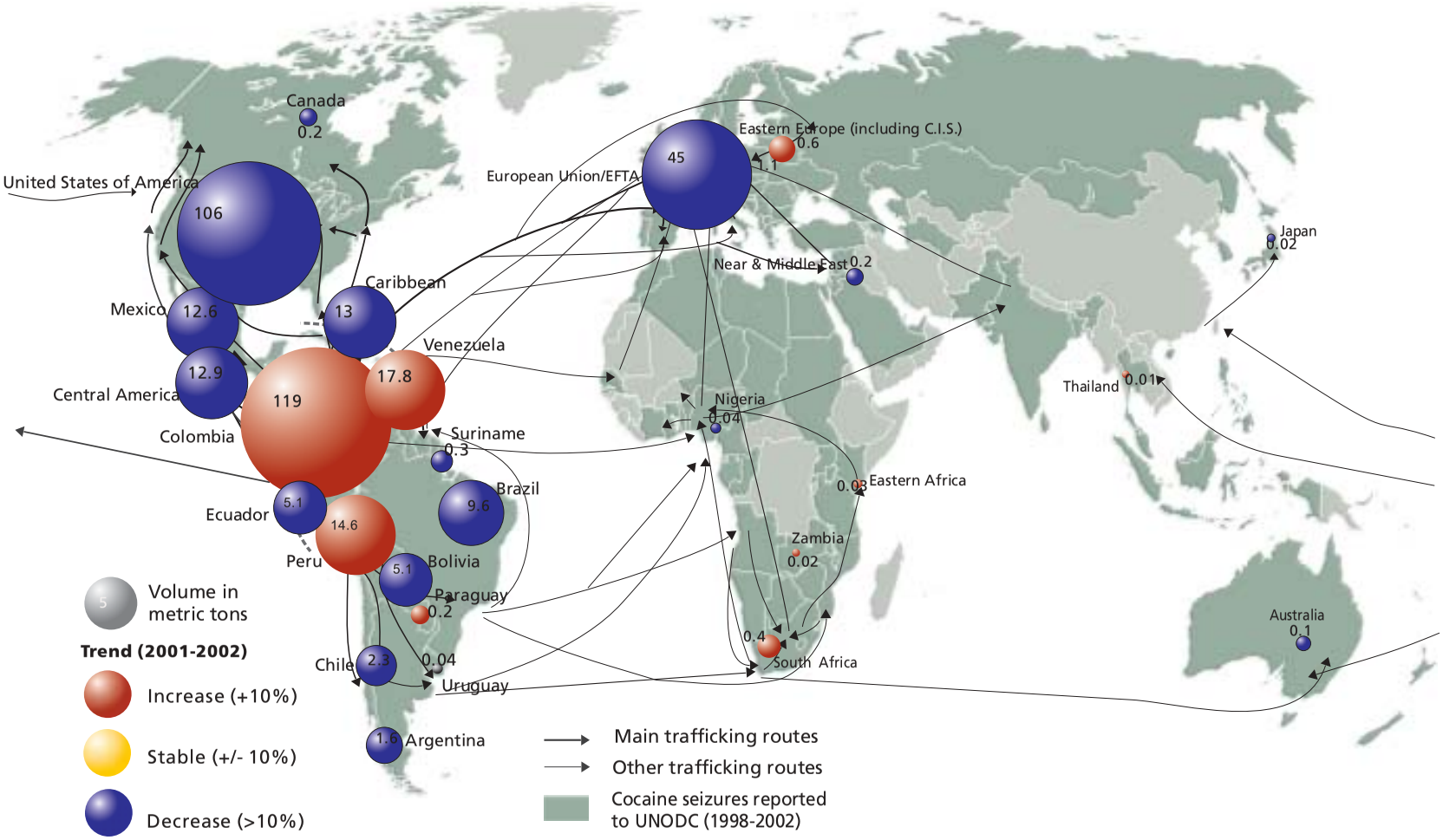








Map 11: Cocaine* seizures 2001 - 2002: extent and trends (countries reporting seizures of more than 0.01 tons (10kg.))



** Cocaine seizures presented in this map do not include seizures in liquid form.*

Note: Routes shown are not necessarily documented actual routes, but are rather general indications of the directions of illicit drug flows.

2.2.3. Abuse

2.2.3.1. Extent

Cocaine is the second most common problem drug in the world and the main problem drug in the Americas. In several countries of Western Europe, it is the second or third most common problem drug.

Cocaine consumption is estimated to affect more than 13 million people or 0.3% of the population age 15-64. Most cocaine continues to be consumed in the Americas (65%), notably in North America (48%). The overall prevalence rate of cocaine use in the Americas is 1.6%. The single largest cocaine market in the world continues to be the USA (5.9 million people in 2002, equivalent to 2.5% of the population age 12 and above or 3.1% of the population age 15-64). Cocaine use in the countries of South America (including Central America and the Caribbean) affects 2.3 million people or 0.8% of the population age 15-64. Above average levels of cocaine use are found in Argentina, Chile, Colombia, Bolivia, Venezuela, Panama, Guatemala, Jamaica, the Dominican Republic and some other countries of Central America and the Caribbean.

The 3.3 million cocaine users in Europe account for about a quarter of global cocaine use (0.6% of the population age 15-64). More than 90% of Europe's cocaine users are in Western Europe (1% of the population age 15-64). The highest cocaine prevalence rates in Europe (age 15-64) have been reported from Spain (2.6% in 2001), Ireland (2.4% in 2002), the UK (2.1% in 2003) and the Netherlands (1.1% in 2001).

In Oceania the level of cocaine use is 1.1% of the population age 15-64. Most cocaine use in this region takes place in Australia (1.5% of the population 15-64 in 2001).

In all other regions, cocaine use is below the global average of 0.3%. The lowest level of cocaine use is in Asia. Cocaine use in Africa is largely linked to spill-overs of cocaine being shipped from South America via Africa to Europe. Concentrations can be identified in South Africa and in some countries of Western Africa.

Importance of cocaine use compared to other drugs

Most countries in the Americas see cocaine as the second or third most widely used illicit substance in their territories. In most countries of Western Europe, cocaine is the third most widely consumed drug after cannabis and the ATS. Cocaine is of less importance in the Nordic countries and in most of the new EU member states or candidate countries where it ranks 4th to 6th. In the C.I.S. countries, including the Russian Federation, it is of less importance. The same applies to a number of Asian countries. In Western and Southern African countries, in contrast, its relative importance is significantly higher.

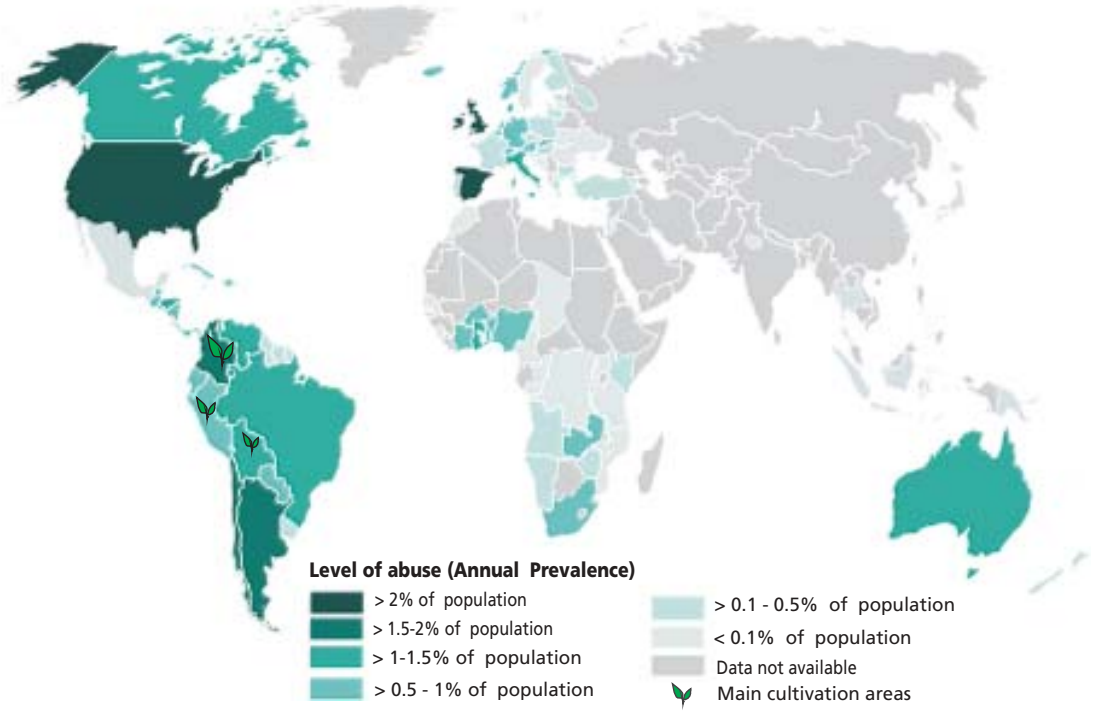
Table 8: Annual prevalence estimates of cocaine use: 2001-2003

	Number of people (in million)	in % of population age 15 - 64
AMERICAS	8.70	1.57
- North America	6.38	2.30
- South America	2.32	0.84
OCEANIA	0.21	1.05
EUROPE	3.34	0.62
- West Europe	3.11	1.01
- East Europe	0.23	0.10
AFRICA	0.94	0.21
ASIA	0.15	0.01
GLOBAL	**13.34**	**0.34**

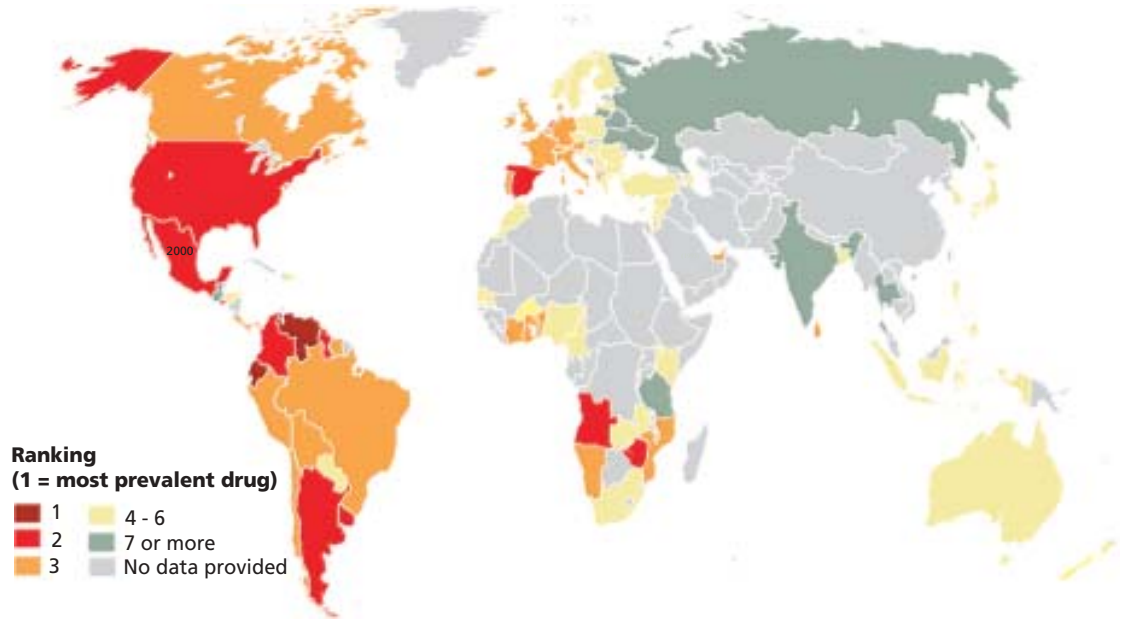
Cocaine abuse above global average
Cocaine abuse below global average

Sources: UNODC, Annual Reports Questionnaire data, various Govt. reports, reports of regional bodies, UNODC estimates.

Map 12: Use of cocaine 2001 - 2003 (or latest year available)



Map 13: Ranking of cocaine in order of prevalence in 2002



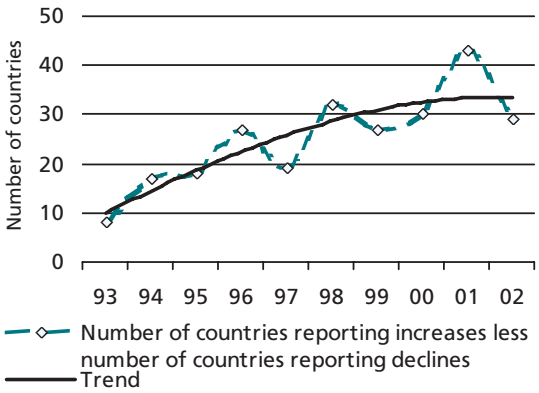
Sources: UNODC Annual Reports Questionnaires data, SAMSHA US National Household Survey on Drug Abuse, Council of Europe, ESPAD.

2.2.1.2. Trends

Spread of cocaine expansion loses momentum

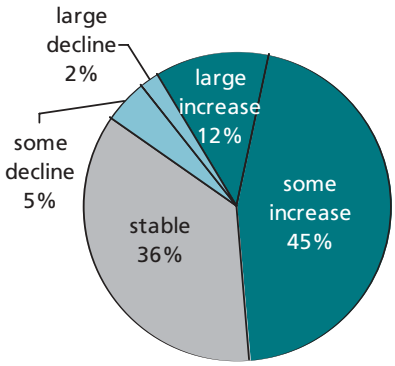
Throughout the 1990s and in subsequent years there have been more countries reporting increases in cocaine use than countries reporting declines. The spread of the cocaine expansion, however, is loosing momentum. In 2002, there was a decline in the number of countries reporting increases (from 49 to 42) and an increase in the number of countries reporting falling levels of cocaine use (from 6 to 13). While in 2001 57% the countries reporting cocaine consumption trends saw an increase, this proportion declined to 46% in 2002. In other words, more than half of all countries (54%) saw cocaine use levels stabilize or decline in 2002.

Fig. 62: Cocaine consumption trends, 1993 - 2002
Number of countries reporting increase less number of countries reporting declining levels of cocaine use



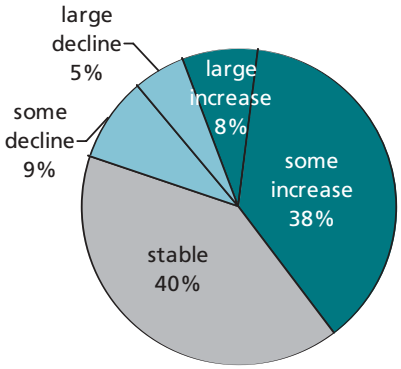
Source: UNODC, Annual Reports Questionnaire Data

Fig. 63: Cocaine consumption trends in 2001 (n =65)



Source: UNODC, Annual Reports Questionnaire Data

Fig. 64: Cocaine consumption trends in 2002 (n =74)



Source: UNODC, Annual Reports Questionnaire Data

AMERICAS

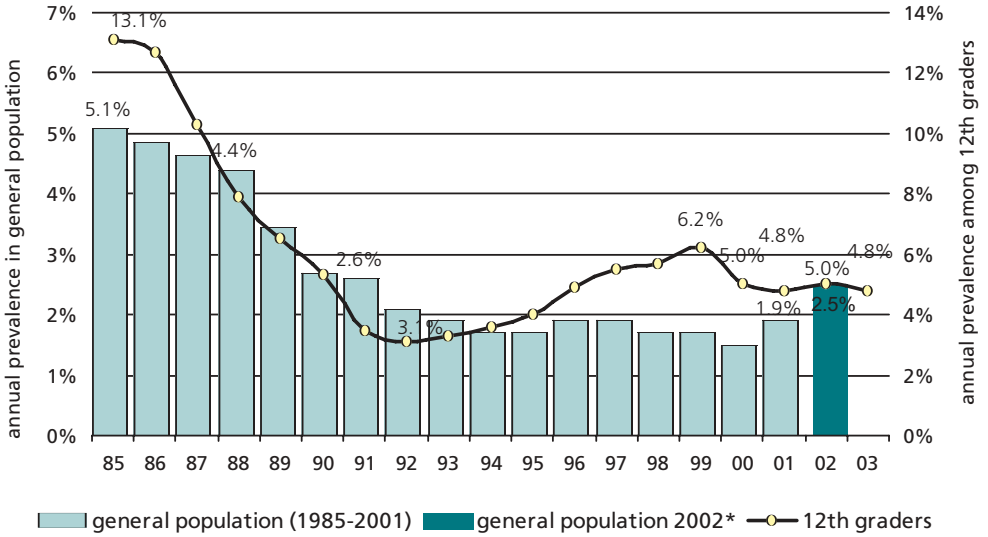
Largely stable in North America

In terms of regional patterns, the use of cocaine appears to have been basically stable in North America. The annual prevalence of cocaine use in the USA was 2.5% of the population age 12 and above in 2002. Cocaine use is rather evenly spread across the USA, with the highest levels found in the state of New Mexico, some of the neighbouring states and a few states on the East coast. Cocaine use remains primarily an urban phenomenon (2.5%-2.9% versus 1.4% in rural areas). Local concentrations -- as reflected in cocaine related emergency room visits (2002) -- are found in Chicago, Philadelphia, Baltimore, Miami, Atlanta, Newark, Detroit, Buffalo and New York.

Given changes in the methodology, the results of the 2002 survey are not directly comparable with previous household surveys. The results (5.9 million people using cocaine, equivalent to 3.1% of the population age 15-64) are, however, in line with previous estimates of the overall (chronic and occasional) cocaine abusing population in the USA produced by the Office of National Drug Control Policy (3.1% of the population age 15-64 in 2000, down from 4.8% in 1990 and 6% in 1988).

The Monitoring the Future study, conducted among US high school students, found a marginal increase in the annual prevalence rate of 12th graders in 2002 and a marginal decline in 2003. The prevalence rate of cocaine use amounted to 4.8% in 2003 and was thus more than 20% lower than in 1999 (6.2%) and more than 60% lower than in 1985 (13.1%).

Fig. 65: Cocaine use in the USA: 1985-2003 annual prevalence rates among the general population, age 12 years and above, and among high-school students (12th graders)

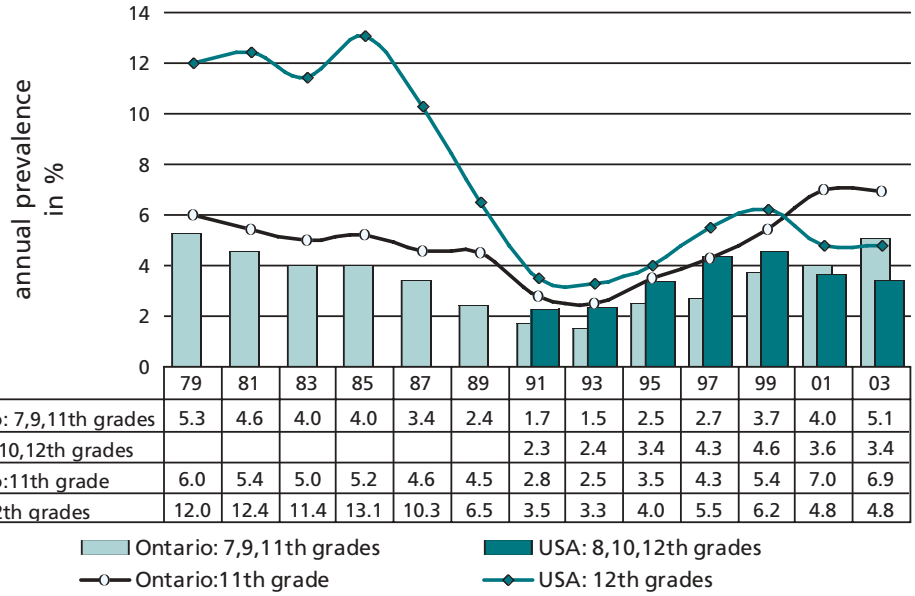


* Given changes in the methodology used, general household survey data for 2002 are not comparable with results previous surveys conducted in previous years.

Sources: SAMHSA, Results from the 2002 National Survey on Drug Use and Health and previous National Household Surveys on Drug Abuse; NIDA, Monitoring the Future, 2002 and previous years.

Canada reported a stabilization of cocaine use in 2002. Trends observed in 2003 show a more complex pattern. Student surveys undertaken in Canada's largest province of Ontario (which accounts for 38% of Canada's total population) found a stabilization of cocaine use among 11th graders in 2003, a decline among 8th and 10th graders, but increasing levels among 7th, 9th and 12th graders. The net result of these opposing trends was an increase. Cocaine use among high-school students in Ontario is now back to the levels observed in the late 1970s. Prevalence rates of cocaine use among high-school students in Ontario are

Fig. 66: Cocaine use among high-school students in Canada (Ontario) and in the USA



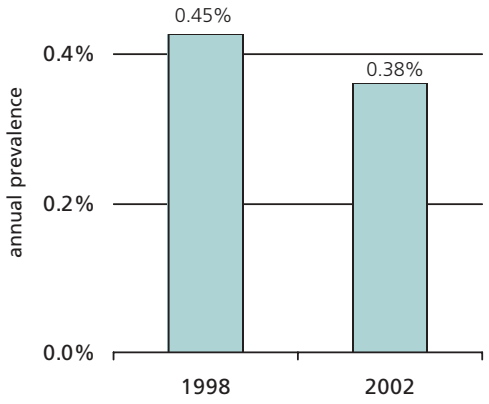
	79	81	83	85	87	89	91	93	95	97	99	01	03
Ontario: 7,9,11th grades	5.3	4.6	4.0	4.0	3.4	2.4	1.7	1.5	2.5	2.7	3.7	4.0	5.1
USA: 8,10,12th grades							2.3	2.4	3.4	4.3	4.6	3.6	3.4
Ontario:11th grade	6.0	5.4	5.0	5.2	4.6	4.5	2.8	2.5	3.5	4.3	5.4	7.0	6.9
USA: 12th grades	12.0	12.4	11.4	13.1	10.3	6.5	3.5	3.3	4.0	5.5	6.2	4.8	4.8

Sources: Centre for Addiction and Mental Health, Drug Use Among Ontario Students, 2003 and NIDA, Monitoring the Future 2003.

now higher than in the USA, reversing the previous pattern which, until 1999, had shown higher levels of cocaine use among US high school students.

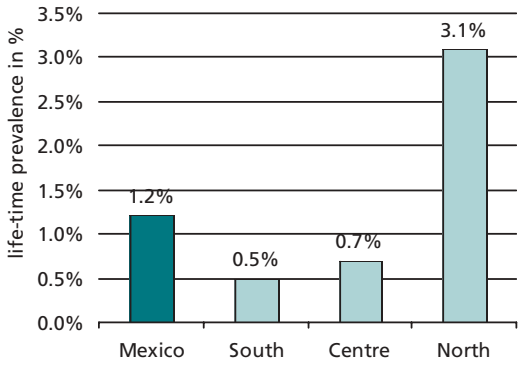
A recently published household survey in Mexico showed not only that the overall level of cocaine use in that country (0.4% of the general population age 12-65 in 2002) was still significantly lower than in the USA, but that cocaine use - in contrast to previous periods - remained basically stable over the 1998-2002 period (showing a statistically non-significant decline over this period). Most of the cocaine use in Mexico is concentrated in the northern states.

Fig. 67: Mexico: cocaine use among the general population



Source: Instituto Nacional de Estadística, Geografía e Informática (INEGI) y la Secretaría de Salud, Encuesta Nacional de Adicciones 2002, Mexico City, March 2004.

Fig. 68: Life-time prevalence of cocaine use in Mexico in 2002

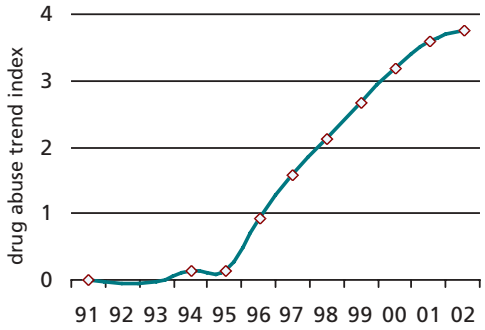


Source: Instituto Nacional de Estadística, Geografía e Informática (INEGI) y la Secretaría de Salud, Encuesta Nacional de Adicciones 2002, Mexico City, March 2004.

Trends in Southern America show an ongoing rise in cocaine use

In contrast to a stable trend in North America, UNODC's Drug Abuse Trend Index showed an ongoing increase of cocaine use in the rest of the continent. In 2002, fourteen countries reported an increase, eight a stablization and two a decline. The number of countries reporting increases less those reporting declines (12) was, however, lower than a year earlier (19).

Fig. 69: Cocaine consumption trends in Southern America, Central America and the Caribbean, based on national experts' perceptions



Source: UNODC, Annual Reports Questionnaire Data.

In Brazil, the largest country in the region, a comprehensive national household survey was conducted for the first time at the end of 2001. It revealed an annual prevalence of cocaine use of 0.4% of the population age 12-65 (including 0.1% for crack cocaine), similar to the level in Mexico but less than in Chile (1.6% in 2002) or in Argentina (1.9% in 1999). Life-time prevalence of cocaine use amounted to 2.3%, suggesting that about 1 million people had experimented with this drug. Cocaine use is high in southern Brazil (3.1%) and in south-eastern Brazil (2.6%) which includes the state of Sao Paulo. Two years earlier, a household survey conducted in the state of Sao Paulo revealed a cocaine life-time prevalence of 2.1%, suggesting that cocaine use had increased in south-eastern Brazil and thus, most probably, in Brazil as a whole. (Two thirds of all Brazilian cocaine users live in the highly populated areas of south-eastern Brazil).

Cocaine use in Colombia, the main cocaine producing country in the region, seems to be significantly higher than in Brazil and is also increasing. Studies among youth in Colombia (age 10-24) showed a life-time prevalence rate of cocaine use of 4.5% in 2001, up from 3.6% in 1999. Use of 'basuco' (a byproduct in the man-

Fig. 70: Brazil, life-time prevalence of cocaine use among the general population (age 12-65) in 2001

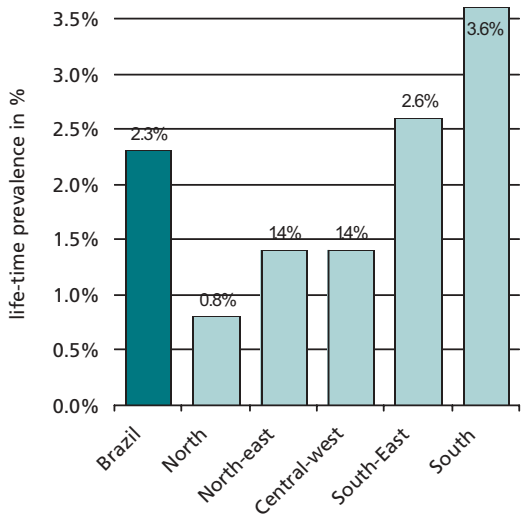
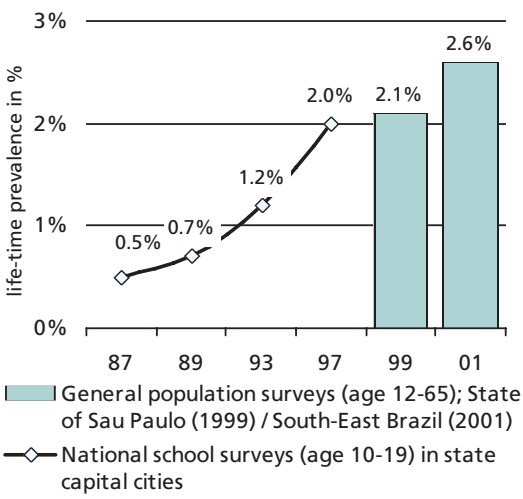


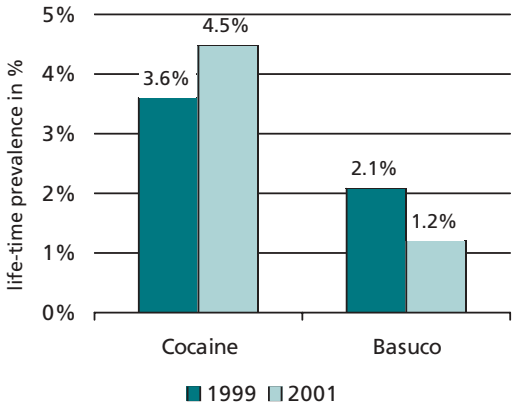
Fig. 72: Brazil, cocaine consumption trends, 1987-2001



Sources: CEBRID, I Levantamento Domicilia Sobre O Uso de Drogas Psicotrópicas no Brasil 2001 and CEBRID, I Levantamento domiciliar Nacional Sobre O Uso de Drogas Psicotrópicas - Estudo envolvendo as 24 Maiores Cidades do Estado de São Paulo 1999, CEBRID, IV Levantamento Sobre O Uso de Drogas entre Estudantes de 1^{e} 2^{e} graus em 10 Capitais Brasileiras, 1997.

ufacture of cocaine), however, declined. For 2002, the Colombian authorities reported a further rise in cocaine use, of both powder cocaine and crack-cocaine. While treatment demand, in general (including for basuco) remained stable, cocaine-related treatment demand continued to rise in Colombia in 2002.

Fig. 71: Colombia: cocaine use among youth (age 10-24)

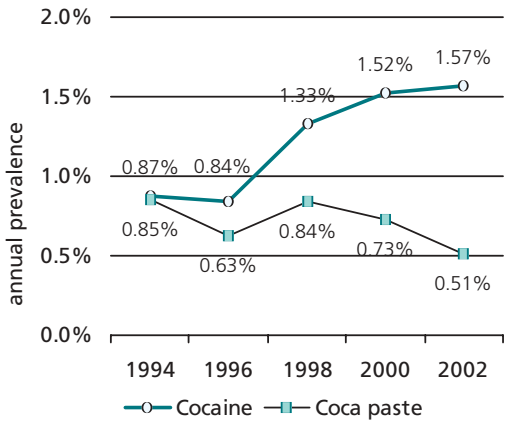


Sources: Programa Presidencial Rumbos, Sondeo Nacional del Consumo de Drogas en Jovenes, 1999-2000 and Programa Presidencial Rumbos, Encuesta Nacional sobre consumo de sustancias psicoactivas en jóvenes de 10 a 24 años el 2001.

Increases in cocaine use in 2002 were also reported from neighbouring Venezuela and Panama as well as from Argentina, Paraguay and in the Caribbean region from Haiti and the Dominican Republic.

There are, however, also some positive trends. Cocaine use in Chile - after having grown strongly in previous years - stabilized at less than 1.6% of the general population (age 12-64) between 2000 and 2002. Use of coca paste declined. This stabilization appears to be the result of increased demand reduction efforts and is probably associated with the lower levels of coca production in Peru and Bolivia as compared to the late 1990s.

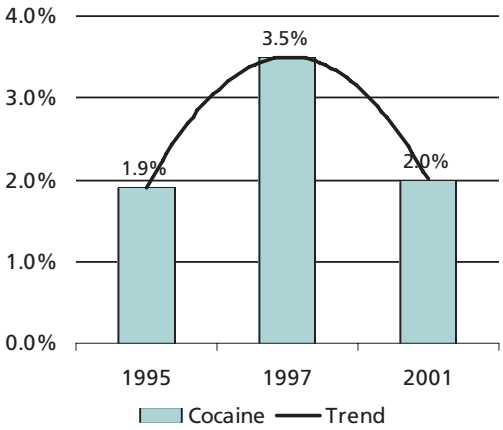
Fig. 73: Chile: Annual prevalence of cocaine and coca paste use in the general population (age 12-64), 1984-2002



Source: CONACE, Estudio Nacional de Drogas en la Población Nacional de Chile, 2002.

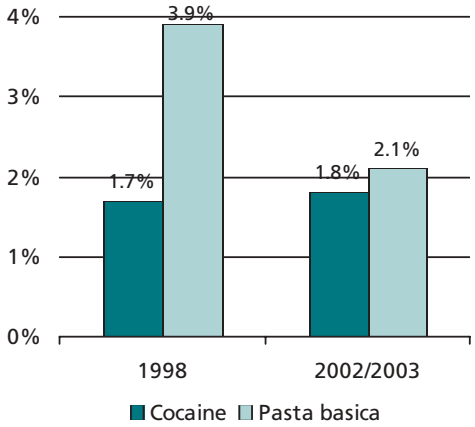
Similarly, cocaine consumption stabilized in Peru over the 1998-2002/2003 period and is now lower than in 1997. Use of coca paste ('pasta basica'), an intermediate product in the manufacture of cocaine, declined significantly over the 1998-2002/2003 period. Annual prevalence of cocaine use affected 0.7% of the population age 12-64 in 2002/03. This is a higher percentage than in Brazil (0.4% in 2001) but less than in neighbouring Bolivia (1.1% of the urban population age 12 and above in 2000) or in neighbouring Chile (1.6% of the population age 12-64 in 2002). Annual prevalence of the use of coca paste in Peru fell to 0.7% of the general population in Peru in 2002/03 and is now less than in Bolivia (1.1%) but still more than in Brazil (less than 0.1%) or in Chile (0.5%).

Fig. 74: Peru: Cocaine use among the urban population, age 12-50, 1995-2001



Source: CEDRO, Epidemiologia de Drogas en la Población Urbana Perruana 2001.

Fig. 75: Peru: Cocaine use among the general population, age 12-64, 1998-2002/03



Source: DEVIDA/INEI/UNODC, II Encuesta Nacional sobre Prevención y Consumo de Drogas 2002, Peru 2003.

Studies in Bolivia also showed that, following strong increases during the 1990s, a stabilization of cocaine use took place over the 1998-2000 period, i.e. at the time when coca production in the country declined. Unfortunately, no new epidemiological surveys have been undertaken which would reveal whether the stabilization continued in subsequent years.

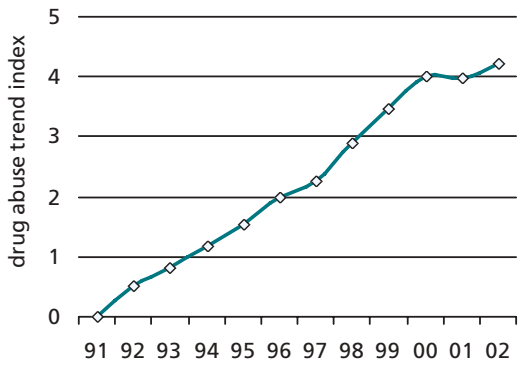
Cocaine use continues to rise in Europe, though at a lower pace than in previous years

UNODC's Drug Abuse Index showed a strong rise of cocaine use over the last decade. The overall increase in the 1990s appears to have been similar to that observed in South America (incl. Caribbean and Central America). Over the last two years, however, signs of stabilization have occurred. While in 2000 the number of European countries reporting increases less those reporting stable or declining trends was 5, this number fell to 1 in 2001 and to -4 in 2002.

This positive development, however, has been partially offset by the emergence of crack-cocaine, a particularly dangerous form of cocaine (often associated with violence and crime) in several European markets over the last few years. Out of 29 European countries reporting on cocaine, 16 countries had already provided information on trends in abuse of crack-cocaine in 2002 (two thirds of these were located in Western Europe). Seven countries saw an increase in crack-cocaine use, 7 countries reported no great change and 2 saw a decline. Crack cocaine is still concentrated in a few locations in Europe, but there is a risk that, once established in local markets, it could spread across the continent.

The general upward trend in the use of cocaine over the last decade in Europe is well documented in a number

Fig. 76: Cocaine consumption trend in Europe (based on national experts' perceptions)



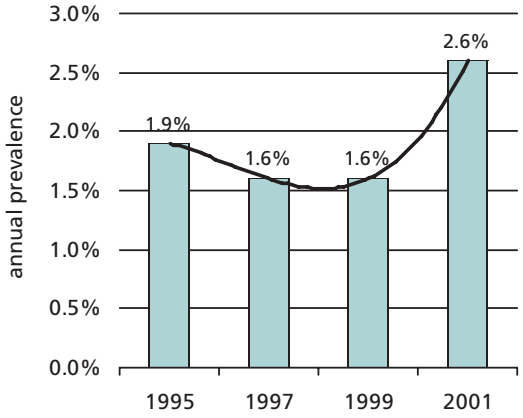
Source: UNODC, Annual Reports Questionnaire Data.

of household and student surveys across the continent, including those conducted in Spain, the Netherlands, Switzerland, France and Ireland.

Most of the increase of cocaine use in 2002 was found in south-western Europe, including Spain, France, the Benelux countries, Italy, Switzerland and Austria, as well as in south-eastern Europe (most Balkan countries).

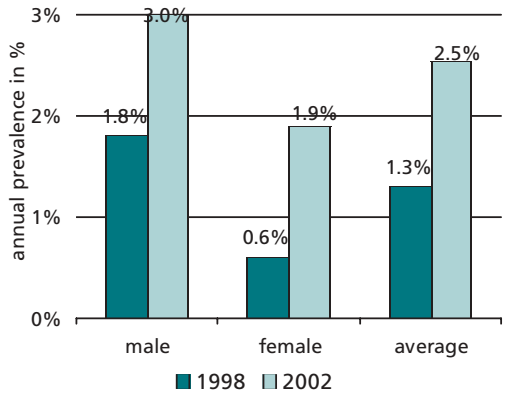
In much of the rest of Europe, cocaine use was reported as stable in 2002. This was the case in Germany and the UK - following years of large increases -, as well as in Sweden, Finland and in most of the new EU member states. Declines in the use of cocaine in 2002 were reported from Hungary and Ukraine.

Fig. 77: Annual prevalence of cocaine use in Spain among the general population (age 15-64, 1995-2001



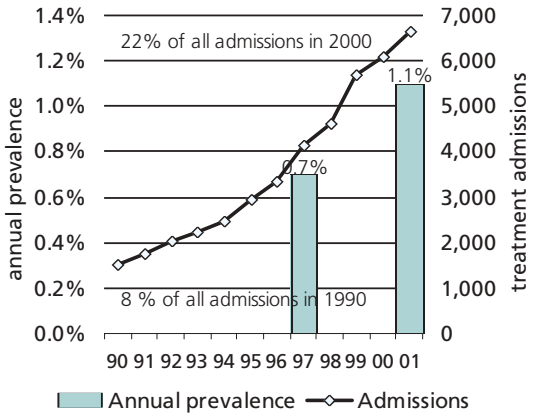
Source: EMCDDA, Data Library.

Fig. 78: Ireland: Cocaine use among the general population age 18 and above



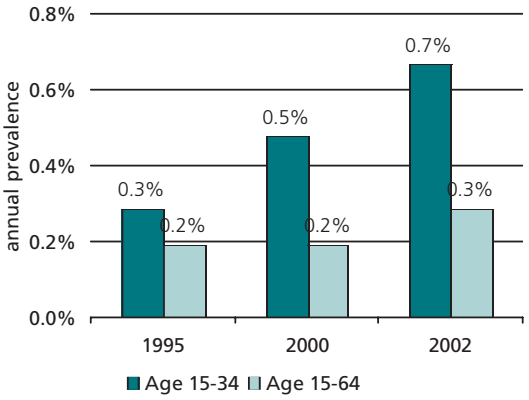
Source: Centre for Health, Promotion studies, *The National Health and Lifestyles Surveys*, April 2003.

Fig. 79: Netherlands: Cocaine use in general population and admissions to outpatient drug treatment with cocaine as primary problem, 1990-2001



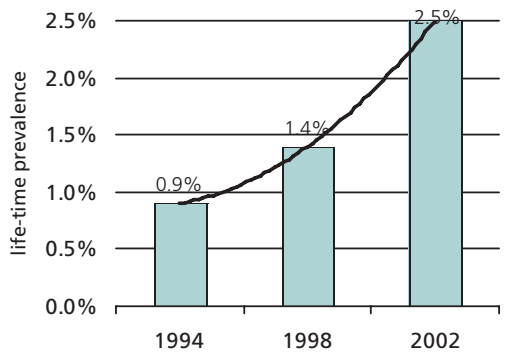
Sources: Trimbos Instituut, National Drug Monitor - National Report 2003 and 2002 and EMCDDA, Data Library

Fig. 80: Cocaine use in France



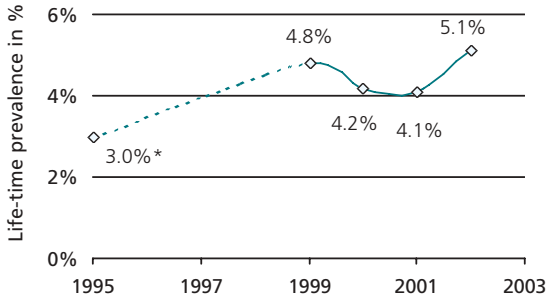
Source: EMCDDA, Data Library.

Fig. 81: Switzerland, cocaine use among 15-16 year olds



Source: SFA/ISPA, Trends im Konsum psychoaktiver Substanzen von Schülerinnen und Schülern in der Schweiz, Lausanne 2003.

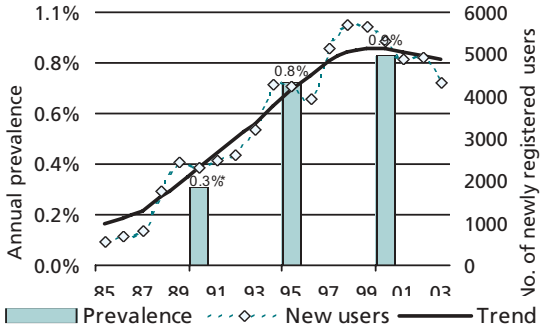
Fig. 82: Italy: Cocaine use among high-school students, age 15-19 year olds



* 16 year olds in 1995

Sources: Council of Europe, The *1995 ESPAD Report and The 1999 ESPAD Report,* and Ministero del Lavoro e delle Politiche Sociali, *Relazione Annuale al Parlamento sullo Stato delle Tossicodipendenze in Italia 2002*.

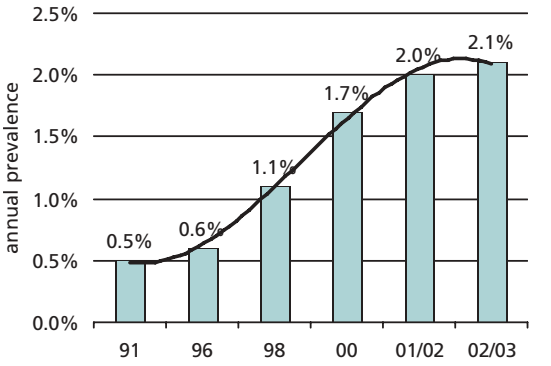
Fig. 83: Germany: Annual prevalence of cocaine use among 18-59 year olds and newly identified cocaine users



* Tentative estimate for Germany as a whole (West-Germany, 12-39 years old: 0.4% in 1990).

Sources: Bundeskriminalamt, *Rauschgiftjahresbericht 2002* and previous years and BKA, *Jahreskurzlage Rauschgift 2003*, Ministry of Health, *Repräsentativerhebung 1995* and 2000.

Fig. 84: England and Wales: Annual prevalence of cocaine use in the UK in the general population (age 16-59)



Source: UK Home Office, *Prevalence of Drug Use: Key findings from the 2002/2003 British Crime Survey*, and previous years.

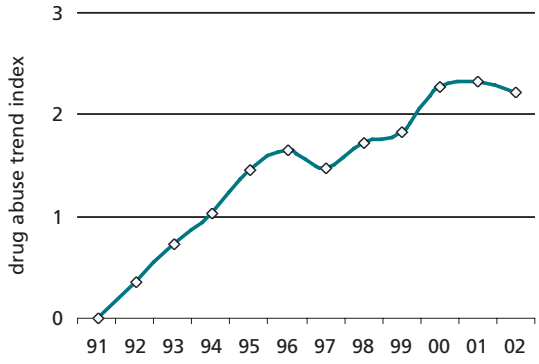
AFRICA

Signs of stabilization following years of increase

Following years of increases, UNODC's Drug Abuse Trend Index showed signs of a stabilization of cocaine use in Africa in 2002. Out of 14 African countries reporting cocaine consumption trends in 2002, 6 experienced an increase, 6 a decline and 2 reported no great change. Reported data over the 2000-2002 period indicate that cocaine use is now encountered in all sub-regions of the continent. There are locations within some Western and Southern Africa countries where prevalence is particularly high, mostly in urban areas. South Africa remains one of the main cocaine markets in Africa, although a decline of cocaine use was noticed for 2000, 2001 and 2002. These declines followed years of large increases in the 1990s. Slightly less than 6% of all treatment demand in South Africa is now related to the abuse of cocaine, which is down from 8% in 1999. In 2003, cocaine abuse levels appear to have remained largely stable. Cape Town and Gauteng (Johannesburg/Pretoria region), followed by Durban, continue to be the main cocaine markets in South Africa.

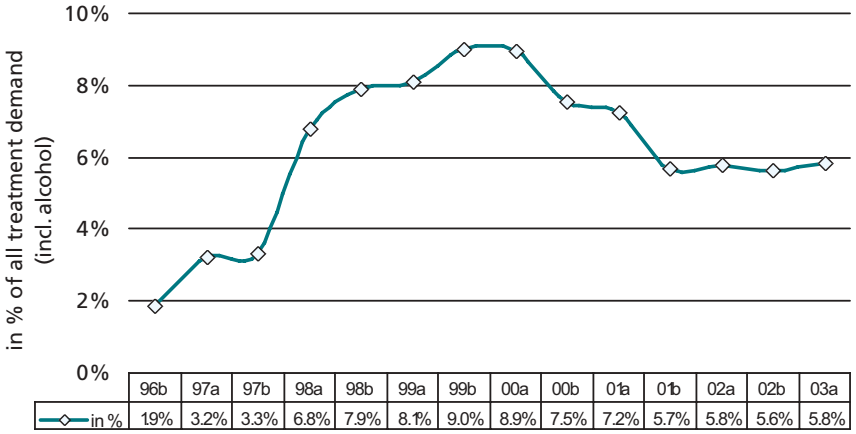
Treatment data from other SADC countries, collected as part of the SENDU project (SADC Epidemiology network on Drug Use), also show some decline of cocaine use. In Namibia, which saw an increase in cocaine use in 2002, as compared to a year earlier, the proportion of people treated for cocaine abuse actually declined from 6% in the first half of 2002 to 3% in the first half of 2003. In Botswana, the proportion fell from 0.5% to 0% over the same period. In Mozambique, it declined from 0.9% (second half of 2002) to 0% in the first half

Fig. 85: Cocaine consumption trend in Africa: based on national experts' perceptions



Source: UNODC, Annual Reports Questionnaire Data.

Fig. 86: South Africa*: People in treatment for cocaine/crack abuse as a proportion of all treatment for substance abuse, including alcohol, 1996-2003



	96b	97a	97b	98a	98b	99a	99b	00a	00b	01a	01b	02a	02b	03a
in %	1.9%	3.2%	3.3%	6.8%	7.9%	8.1%	9.0%	8.9%	7.5%	7.2%	5.7%	5.8%	5.6%	5.8%

* based on reports of people treated in Cape Town, Durban, Port Elisabeth, Gauteng and Mpumalanga (close to 12,000 people p.a. over the 2000-2002 period, of which around 800 people p.a. were treated for cocaine/crack-cocaine abuse).

Source: SACENDU, *Research Brief Vol. 6(2)*, 2003.

of 2003. No people treated for cocaine abuse were reported from Lesotho, Malawi or Mauritius.

In eastern Africa (Tanzania, Kenya, Somalia, Rwanda) the authorities reported either stable or falling levels of cocaine use in 2002.

Reported trends in western Africa were more mixed. While Cameroon and Togo saw a rise in cocaine use in 2002 (like Benin and Gambia a year earlier), Ghana saw no great change and authorities in Côte d'Ivoire perceived that cocaine use declined.

A mixed picture was also reported from northern Africa. While Tunisia reported an increase, Morocco saw a decline of cocaine use in 2002. Subsequent reports suggest that cocaine use in Morocco may have increased again in 2003, mainly among youth of the country's upper class.

ASIA

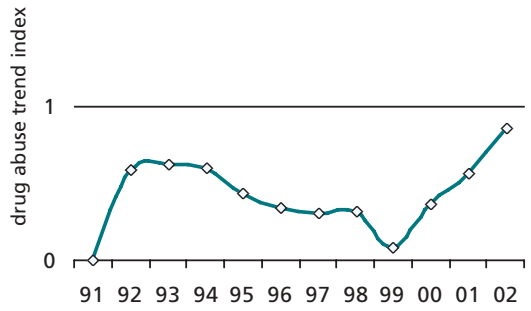
Cocaine use remains low, but increases are seen in the Near East and in South Asia while cocaine use in East and South-East Asia shows stable or declining trends

Some increase in cocaine use has been reported in recent years from the Near East as well as from South Asia. Cocaine use in East and South-East Asia, in contrast, has remained stable or is declining, probably a consequence of the popularity of methamphetamine in this region. (Methamphetamine is abundantly available, relatively cheap and is used as a potential substitute for cocaine). In 2002, Syria and Saudi Arabia reported increases in the use of cocaine, as well as India and Bangladesh. All other Asian countries reported either stable or declining trends in 2002.

Overall cocaine use in Asia, however, continues to be limited. Despite increases reported from India, the world's second most populous country, recent studies have not found cocaine to be among the main substances abused. As drugs with a life-time prevalence of at least 0.1% were investigated, it can be assumed that life-time prevalence of cocaine use among the general population must be still less than 0.1% in India (and other Asian countries). However, data from India's Drug Abuse Monitoring System (DAMS) found that, for 2000, 1.7% of all treatment demand was already related to cocaine abuse -- mainly concentrated in the state of Maharashtra (which includes Mumbai/former Bombay), the neighbouring state of Madhya Pradesh and in Uttar Pradesh (neighbouring Madhya Pradesh).

Reports from Thailand suggest that cocaine use is mainly encountered in tourism centres and that it is linked to the entertainment sector. It is mainly perceived to be one among a number of 'club drugs'. Cocaine is still less easily available than methamphetamine or opiates. Domestic use by Thai people appears to be still limited to some experimental use by a few upper class people attending night clubs. Similar patterns are also found in several other Asian countries.

Fig. 87: Cocaine consumption trend in Asia (based on national experts' perceptions)



Source: UNODC, Annual Reports Questionnaire Data.

OCEANIA

After massive increases in the 1990s cocaine use has stabilized in recent years

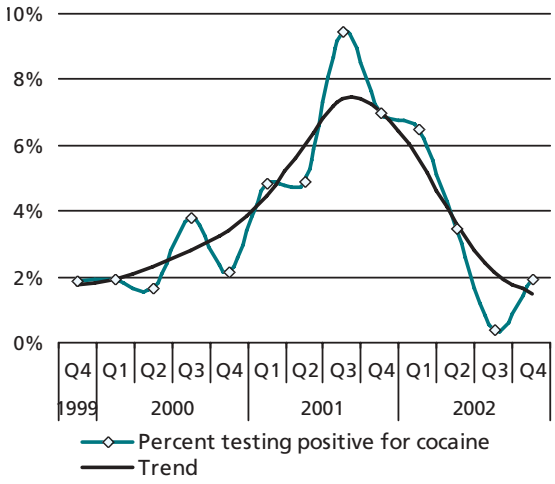
Cocaine use in Oceania is mainly concentrated in Australia and, within Australia, in New South Wales (notably in Sydney). Household survey data showed almost a tripling in the number of cocaine users between 1993 and 1998, followed by a marginal decline of cocaine use over the 1998 to 2001 period (from 1.4% to 1.3% of the general population age 14 and above).

Following a temporary rise in 2001, cocaine consumption fell back to the levels seen in 2000

Trends for 2001 and 2002 can be deduced from other indicators. They all show an increase in cocaine use in 2001, mainly reflecting the heroin drought of 2001 and thus some shifts into cocaine (and methamphetamine), followed by a decline in 2002. The Drug Use Monitoring in Australia (DUMA) data, for instance, revealed that the proportion of male police detainees testing positive for cocaine in four sites across Australia (Bankstown, Parramatta, South Port and East Perth) increased from, on average, 2.4% in 2000 to 6.6% in 2001, but declined again to 3.1% in 2002. Based on interviews among injecting drug users (IDUs), the Illicit Drug Reporting System (IDRS), found that the proportion of IDUs taking cocaine rose from 24% in 2000 to 35% in 2001, but fell again to 27% in 2002.

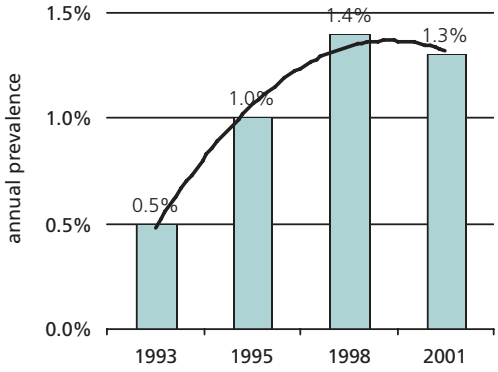
The increase in 2001 and the fall of cocaine use in 2002 do not appear to have been caused by changes in cocaine availability. Cocaine prices remained largely stable and, importantly, cocaine availability was also perceived by drug users to have remained largely stable in 2002. Cocaine purity, however, appears to have declined in 2002[q].

Fig. 88: Percent testing positive for cocaine among police detainees* in Australia, 1999-2002



Source: Australian Institute of Criminology, "Drug Use Monitoring in Australia (Duma) Collection 1999-2002".

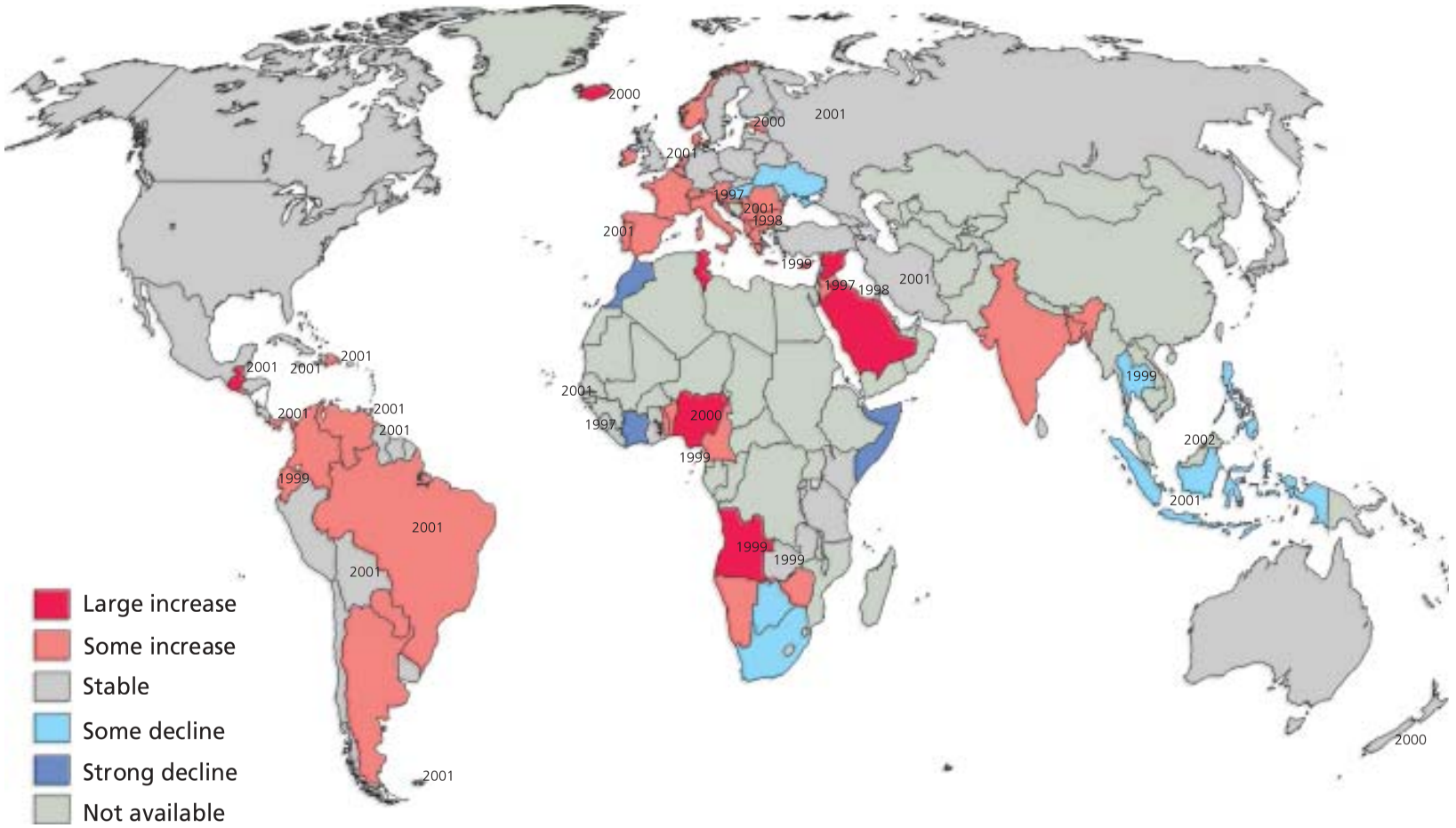
Fig.89: Annual prevalence of cocaine use in Australia



Source: AIHW, *Statistics on Drug Use in Australia 2002*, Canberra 2003.

q) National Drug and Alcohol Research Centre (NDARC), *Australian Drug Trends 2002 - IDRS - Findings from the Illicit Drug Reporting System (IDRS)*, NDARC Monograph No. 50, Sydney 2003.

Map 14: Changes in consumption of cocaine, 2002 (or leatest year available)



Sources: UNODC Annual Reports Questionnaires data, UNODC (Regional Centre Bangkok) Epidemiology Trends in Drug Trends in Asia (Findings of the Asian Multicity Epidemiology Workgroup), December 1999, National Household Surveys submitted to UNODC, United States Department of State (Bureau for International Narcotics and Law Enforcement Affairs) International Narcotics Control Strategy Report, 1999;Bundeskriminalamt (BKA) and other Law Enforcement Reports, SACENDU (South African Community Epidemiology Network) July - December 1998,UNODC and Ministerio de Educacion,Estudio Epidemiologico 1999, CEDRO, Epidemiologia de Drogas en la poblacion urbana Peruana - 1995, INCB, Annual Report for 1999.

2.3. Cannabis market

2.3.1. Production

2.3.1.1. Cannabis herb

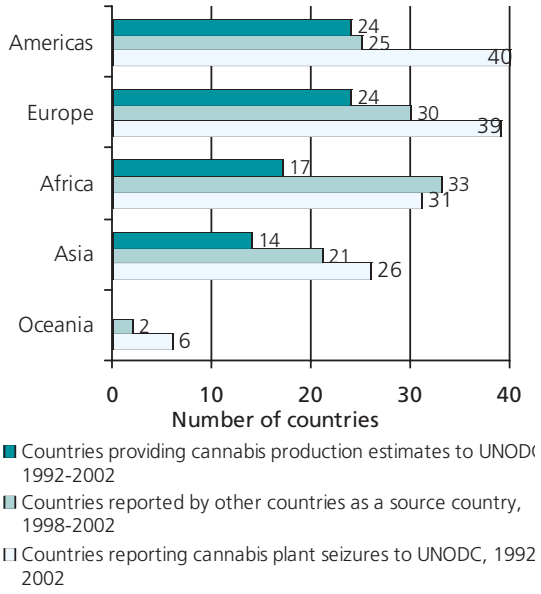
Production is globally dispersed

Over the 1992-2002 period, 79 countries provided UNODC with cannabis production estimates, indicating that cannabis production took place on their territory. The total number of cannabis producing countries is, however, still larger. Ninety four countries providing information on the origin of seized cannabis herb cited 82 different source countries for the year 2002. Over the 1998-2002 period, 111 cannabis herb source countries were identified with this approach. If cannabis plant seizures are used as an indicator of domestic cannabis production (the plant as such is not usually shipped across borders), 124 source countries over the 1998-2002 were identified, or 142 source countries over the 1992-2002 period.

Based on the number of countries which provided cannabis production estimates and cannabis plant seizures to UNODC, data suggest that the majority of cannabis source countries are located in the Americas. The largest number of countries cited as a source for cannabis herb by other countries are, however, found in Africa. At the same time, data also show that the cannabis source countries are distributed across the world fairly evenly, clearly showing that cannabis production is a truly global problem.

Nonetheless, some concentrations can be identified. North America seems to be the world's largest cannabis market, accounting for 2/3 of global cannabis herb seizures over the 2001-2002 period. US authorities report that two thirds of cannabis herb is domestically produced. Out of cannabis herb imports into the USA, 63% came from Mexico and 23% from Canada in 2002. Mexico reported that 95% of the cannabis herb on its market came from domestic sources; 5% was imported from Guatemala. The Canadian authorities reported all seized cannabis herb as having originated from domestic sources.

Fig. 90: Spread of cannabis production around the world



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

In South America, Colombia is a main source country (for Venezuela and several other countries in the Americas). In addition, Paraguay seems to play a key role in supplying the markets of Brazil, Argentina (99%), Uruguay (100%) and Chile (79%). Local production also takes place in all of these countries. Jamaica is frequently mentioned as a major source country in the Caribbean region. In addition, significant levels of

domestic cannabis production seem to take place in other countries of the Caribbean region as well. Practically all of the Central American countries are mentioned as major source countries for cannabis herb within Central America.

Cannabis production in Africa is reported from practically every country. There are also important movements of cannabis herb across borders in Africa. Significant source countries in central and western Africa are - *inter alia* - Ghana, Nigeria, Cameroon, Côte d'Ivoire, the Democratic Republic of Congo, Congo and Senegal; in southern Africa: the Republic of South Africa, Malawi, Lesotho, Swaziland and Zambia; in eastern Africa: Tanzania, Uganda and Kenya; and in northern Africa: Egypt and Morocco. Cannabis herb exports to Europe are mainly from countries in Western Africa (notably for exports to France) and from the Republic of South Africa (notably for exports to the UK, Ireland and Belgium).

Most countries in Europe also report domestic production of cannabis. The most frequently cited source country in Europe is Albania which supplies most countries in the Balkan region (Bulgaria, FYR of Macedonia, Serbia and Montenegro, Croatia) as well as Greece, Italy, Slovenia, Austria and Sweden. The Netherlands was the second most frequently cited source country in Europe in 2002. In addition, criminal groups importing cannabis herb from the Russian Federation were identified as the main source of the cannabis herb by several East European countries. The Central State Drugs Committee of the Russian Federation estimated, however, that only 30% of the cannabis herb on its market was of Russian origin; 70% was from Kazakhstan.

In Central Asia all of the countries reported cannabis to have been of domestic origin, with Russia being the main export market. In the countries of the Near and Middle East, Lebanon and Egypt were identified as the main source countries. Lebanon was also the main source for cannabis found in Turkey. The main source country in South Asia is India. The main source countries in South-East Asia are Cambodia, Thailand and the Philippines. With regard to cannabis herb exports from South-East Asia to Europe, Thailand was most frequently mentioned in 2002.

Most of the cannabis herb in the Oceania region is of domestic origins. In addition, North America (33% of imports) and the UK (20% of imports) were mentioned as source countries.

Production has been rising and may have reached some 32,000 tons in 2002

Previous UNDCP estimates for the mid 1990s suggested that global cannabis production (cannabis herb and cannabis resin, expressed in cannabis herb equivalents) was around 30,000[r] tons. More recent estimates seem to confirm these orders of magnitude, though showing slightly higher figures.

According to US government estimates cannabis herb production outside the USA was around 15,400 tons in 2002, up from 11,200 tons in 1999[s]. Annual production of marijuana in the USA was estimated by the US authorities to amount to more than 10,000[t] tons in 2001/2002. This would result in a global cannabis herb production of more than 25,000 tons. This includes an estimate for cannabis herb production of 3,500 tons for countries other than the USA, Mexico and Colombia. The latter estimate, however, appears to be rather conservative. US authorities also reckon that "there may be considerable amounts of undetected cannabis cultivation in Central and East Asia, and on the African continent.[u]" Estimates provided by member states over the last few years to UNODC suggest that the latter figure could be substantially higher, probably close to 9,000 tons (still conservatively estimated). Global cannabis herb production could thus amount to some 32,000 tons. (This is a tentative estimate which could change substantially as more information becomes available).

If available estimates from various sources are combined, data show a strong decline of cannabis herb production over the 1989-1992 period, followed by an increase over the subsequent decade so that global cannabis herb production in 2002 has again reached

r) UNDCP, "Cannabis as an Illicit Narcotic Crop: A review of the Global Situation of Cannabis Consumption, Trafficking and Production" in UNDCP, *Bulletin on Narcotics*, Double Issue on Cannabis: Recent Development, Vol XLIX No. 1 and 2, 1997 and Vol. L, Nos. 1 and 2, 1998, pp. 45-83.

s) Department of State, *International Narcotics Control Strategy Report*, March 2003.

t) ONDCP, *National Drug Control Strategy*, February 2003, p. 30.

u) A survey conducted in 1998 in Kazakhstan revealed a (minimum) harvest of 1,517 tons (though the potential harvest could have been as high as 148,000 tons). The (minimum) production in Kyrgyzstan amounted to 677 tons (with a potential production of 4250 tons). Paraguay reported the production of 1,415 tons (1998), the Philippines 1,353 tons (2000), Brazil 1,110 tons (2000); India 663 tons (1998), Indonesia 512 tons (1997), South Africa 467 tons (2002), Lebanon 218 tons (2000), Swaziland 210 tons (2001), Nigeria 200 tons (1999), Malawi 175 tons (2000), Guatemala 150 tons (2000), Kenya 130 tons (1999), the Russian Federation 90 tons (1999), Honduras 52 tons (2002), Thailand 25 tons (1997), Tanzania 22 tons (1992), Uganda 21 tons (1999), etc.

Table 9: Cannabis herb production in 2002 in metric tons

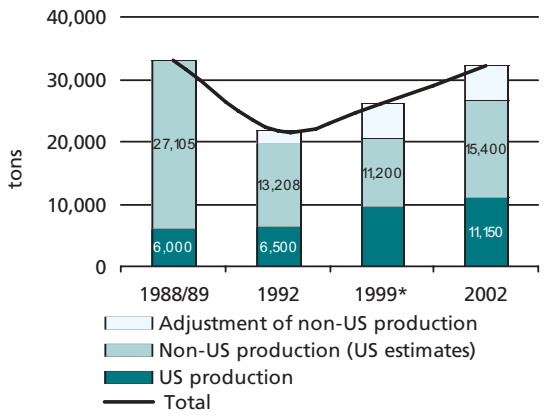
Country	mid range estimates	range:	
USA*	11,150	5,577	16,731
Mexico	7,900		
Colombia	4,000		
Others (conservative estimate)	3,500		
Sub-total (based on US estimates)	**26,550**	**20,900**	**43,300**
Others (not included above)	5,500		
Total (rounded)	**32,000**		

Sources: United States Department of State, International Narcotics Control Strategy Report, March 2003, Drug Availability Steering Committee, *Drug Availability Estimates in the United States*, December 2002, Office on National Drug Control Policy, *National Drug Control Strategy*, February 2003, UNODC, Annual Reports Questionnaire Data.

levels similar to the late 1980s. It may also be interesting to note that the trend of global cannabis herb seizures exhibits a very similar pattern over the same period.

A global production of 32,000 tons of cannabis herb would result in a global interception rate of 15%. An estimate of 32,000 tons is thus probably a minimum estimate. A production any lower than this would mean an even higher interception rate - which does not seem to be very likely in the case of cannabis. An estimate of 32,000 tons would be equivalent to an average annual consumption of around 220 grams of cannabis herb per cannabis user.

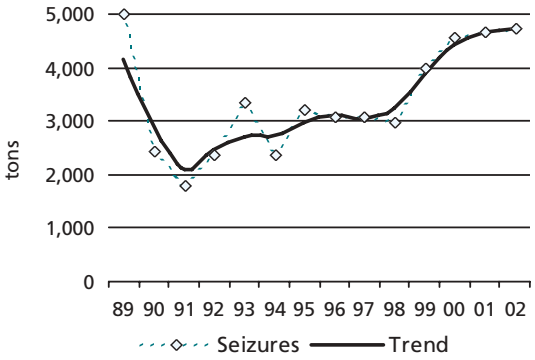
Fig. 91: Global cannabis herb production estimates, 1988/89 - 2002



* tentative estimate of US production in 1999.

Sources: United States Department of State, *International Narcotics Control Strategy Report*, March 2003, Drug Availability Steering Committee, *Drug Availability Estimates in the United States*, December 2002, Office on National Drug Control Policy, *National Drug Control Strategy*, February 2003, UNODC, Annual Reports Questionnaire Data.

Fig. 92: Global cannabis herb seizures, 1989-2002



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

It should be noted that the current production estimates do not tally with consumption estimates for individual countries. Supply side estimates for the USA, for instance, see a cannabis herb market (including imports) of close to 18,000 tons (range: 10,000 to 24,000 tons) for 2001/2002, consisting of a domestic production of more than 10,000 tons and imports of more than 7,000 tons. Consumption based estimates see a cannabis herb market of around 1,000 tons for the USA[v]. Thus far, this discrepancy has not been resolved.

v) Drug Availability Steering Committee, Drug Availability Estimates in the United States, December 2002.

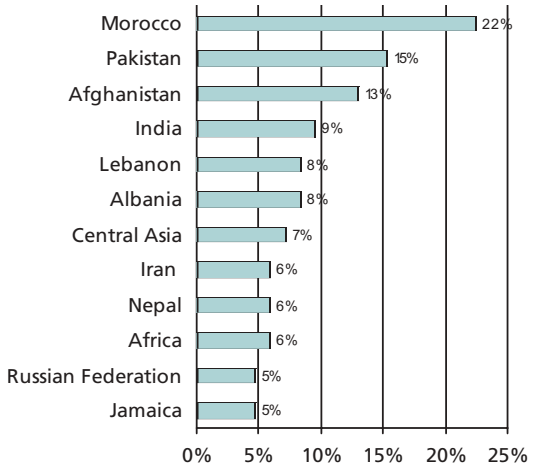
2.3.1.2. Cannabis resin

Global cannabis resin production is concentrated in Morocco as well as in Pakistan and Afghanistan

Over the period 1999-2002, Morocco followed by Pakistan and Afghanistan were the most often cited source countries for cannabis resin. In Western Europe, the world's largest cannabis resin market, where more than two thirds of all cannabis resin seizures were made in 2002, about 80% of the cannabis resin is estimated to originate in Morocco[w]. The Near and Middle East/South-West Asia region accounted for more than 20% of all cannabis resin seizures in 2002. The main source countries for this region are Pakistan and Afghanistan.

Other important source countries identified are India, Lebanon, Albania, the Central Asian countries (notably Kazakhstan and Kyrgyzstan), Nepal, a number of African countries and the Russian Federation. The only country in the Americas cited as an important country of origin for cannabis resin is Jamaica. In addition to the countries mentioned above, a significant number of European countries identified Spain and the Netherlands as the countries where criminal groups obtained their cannabis resin.

Fig. 93: Main source countries of cannabis resin, 1999-2002 (based on information from 85 countries)



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

In 2003, UNODC and the Government of Morocco, conducted the country's first comprehensive cannabis resin survey. The survey revealed a potential production of cannabis resin of 3,080 tons (out of 47,400 tons of cannabis plant material), produced on some 134,000 hectares of land in the Rif region by some 96,600 families.

These are substantial amounts. For comparison, previous UNDCP surveys on cannabis production, conducted in Central Asia (1998) revealed a cannabis resin production of 53 tons (on 2,500 ha) in the Shuy valley of Kazakhstan and of 24 tons in Kyrgyzstan (on 770 ha), suggesting that cannabis resin production in Central Asia is less than 100 tons a year.

Based on the Moroccan results and an analysis of global cannabis resin seizure data, a tentative estimate of global cannabis resin production can be made. Available data for 2002 suggest that about 60% of seized cannabis resin was of Moroccan origin. (The same percentage is also obtained if the analysis is extended to the 1992-2002 period). Global cannabis resin production could thus be estimated at around 5,100 tons.

However, this is a conservative estimate. The interception rate of cannabis resin in Western Europe (where most of the Moroccan cannabis resin is seized) is probably higher than in other parts of the world. It is therefore likely that the proportion of Moroccan cannabis is less than the proportion of Moroccan cannabis intercepted. Consequently, it would be reasonable to assume that global cannabis resin production is higher than 5,100 tons. Indeed, a comparison of cannabis herb and resin seizures shows that in 2002 (as well as over the

w) Most of Europe's cannabis resin originates in Morocco, accounting for some 80% of West Europe's cannabis resin imports. France, for instance, reported that 82% of the cannabis resin found on its market in 2002 originated in Morocco. Belgium saw 80% to come from Morocco, Sweden 85%, the Czech Republic 70%; Spain, Italy, Denmark, Finland and Ireland reported that almost all of the cannabis resin originated in Morocco. Authorities in the UK reported that the bulk of the cannabis resin found on the UK market is shipped from Morocco via the Iberian Peninsula, France and the Benelux countries to the UK. Similarly, the German authorities see the bulk of the cannabis resin to have originated in Morocco and to have transited Spain and the Netherlands before arriving in Germany.

Table 10: Tentative estimates of global cannabis resin production, 2003

1. Estimate based on Moroccan cannabis resin production and seizures				
	Seizures in tons (2002)	Estimated proportion related to cannabis resin originating in Morocco	Potential seizures related to Moroccan cannabis in tons	Cannabis resin production in tons
Western Europe	732	80%	585	
North Africa	71	90%	64	
Seizures related to Moroccan cannabis resin			649	
Global seizures			1,073	
in %			60%	
Cannabis resin production in tons		60%		3,080
Estimate of global cannabis resin production, rounded				5,100
2. Estimate based on cannabis herb estimates and seizures				
	Cannabis herb	Cannabis resin	Proportion	Cannabis resin production in tons
Cannabis seizures in tons (2002 data)	4,741	1,076	23%	
Cannabis production estimates, rounded	32,000		23%	7,400

Sources: UNODC, Annual Reports Questionnaire Data

1998-2002 period) cannabis resin seizures amounted to 23% of cannabis herb seizures. Applying the estimate of 32,000 tons for cannabis herb, the corresponding production figure for cannabis resin could be around 7,400 tons. Based on this estimate Morocco would account for some 40% of global cannabis resin production, but less than 10% of global cannabis herb and resin production taken together.

2.3.2. Trafficking

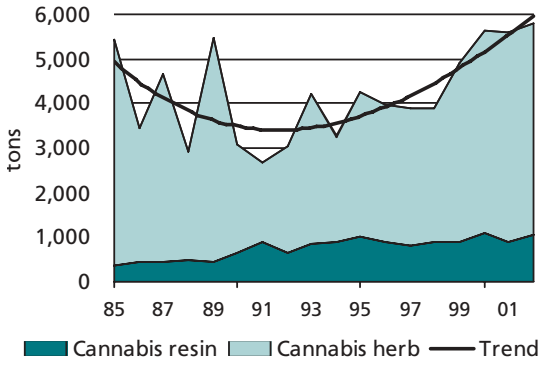
Cannabis is the most extensively trafficked drug worldwide

The two cannabis products, cannabis herb (marijuana) and cannabis resin (hashish) remain the most extensively trafficked drugs worldwide. Practically all the countries of the world are affected by cannabis trafficking. Seizures of cannabis exceed those of other drugs in almost all countries. In 2002, a total of some 5,800 tons of cannabis products were seized globally. This total includes more than 4,700 tons of cannabis herb, more than 1,000 tons of cannabis resin and more than 1 ton of cannabis oil. The volume of seized cannabis products was more than 15 times the volume of cocaine and more than 100 times the amount of heroin seized.

Cannabis herb seizures were stable but cannabis resin seizures rose in 2002

The upward trend in cannabis seizures, which began in the early 1990s, continued in 2002. Cannabis herb seizures remained generally stable, but cannabis resin seizures increased in 2002, offsetting the decline reported the previous year. Overall cannabis seizures were almost twice as high in 2002 as a decade earlier.

Fig. 94: Cannabis seizures, 1985-2002

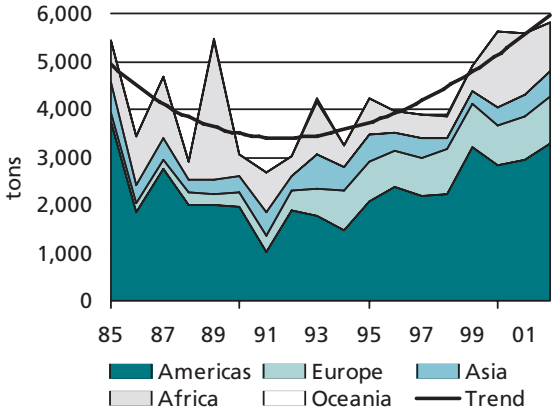


Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Cannabis seizures concentrated in the Americas and in Africa

Over the 2001-2002 period, 55% of all cannabis seizures were reported from the Americas, 20% from Africa, 16% from Europe, 9% from Asia and less than 1% from Oceania. In 2002 cannabis seizures fell in Oceania and in Africa but increased in Asia, the Americas and in Europe.

Fig. 95: Cannabis seizures, regional distribution, 1985-2002



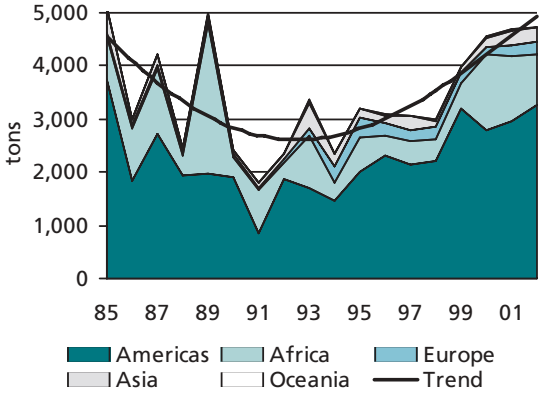
Source: UNODC, Annual Reports Questionnaire Data / DELTA.

2.3.2.1. Trafficking in Cannabis herb

Cannabis herb seizures rose strongly in recent years, but were stable in 2002

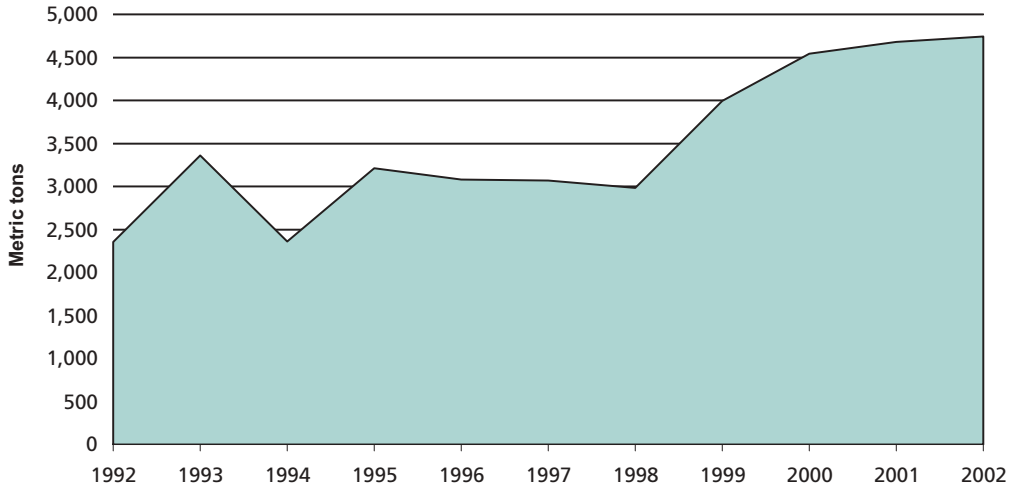
Cannabis herb is by far the most widely trafficked drug worldwide. Over the 2000-2002 period, 169 countries reported seizures of cannabis herb, more than heroin (143 countries), cocaine (140 countries), cannabis resin

Fig. 96: Cannabis herb seizures, 1985-2002

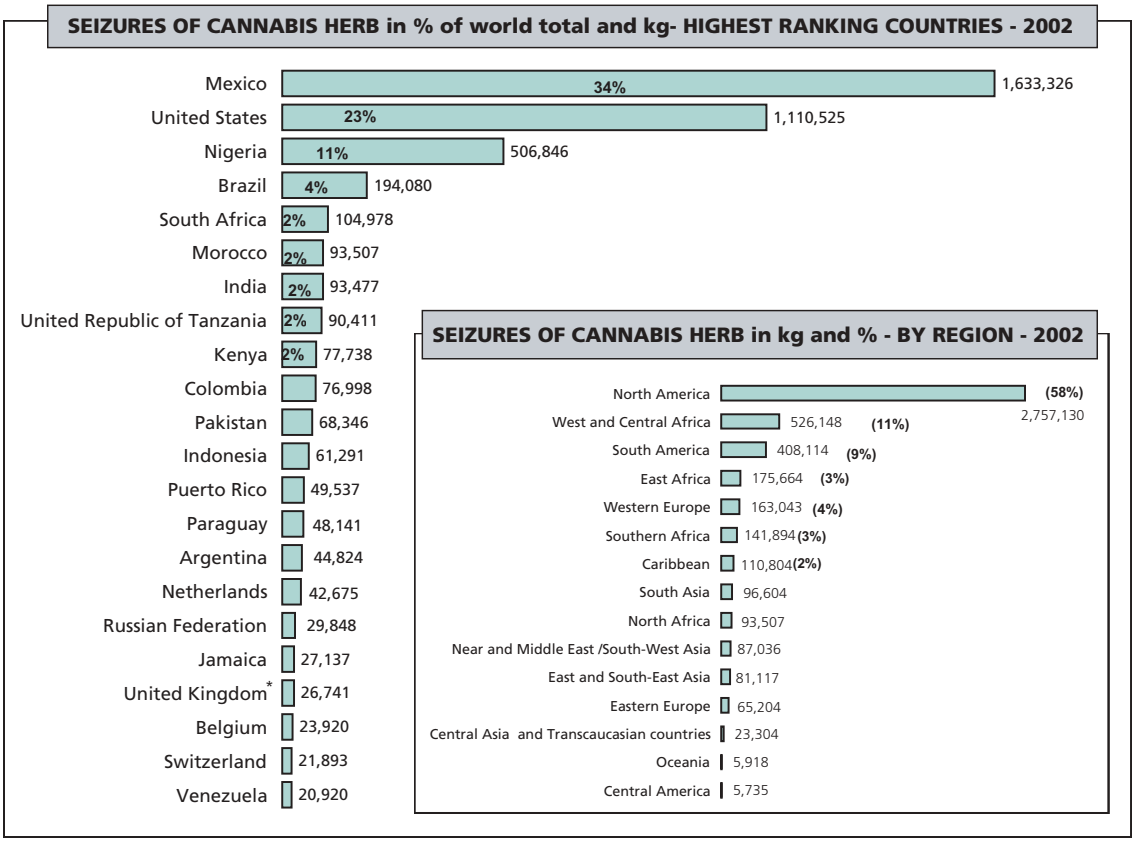


Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Fig. 97: Global seizures of cannabis herb, 1992 -2002

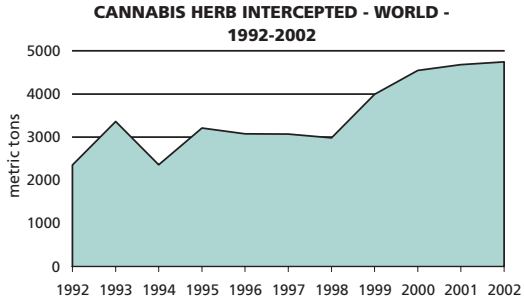


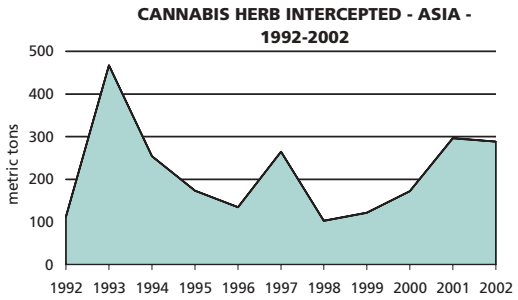
Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Metric tons	2,355	3,361	2,359	3,211	3,078	195	2,985	3,992	4,544	4,678	4,741

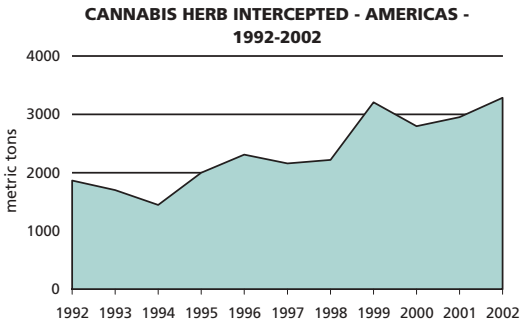


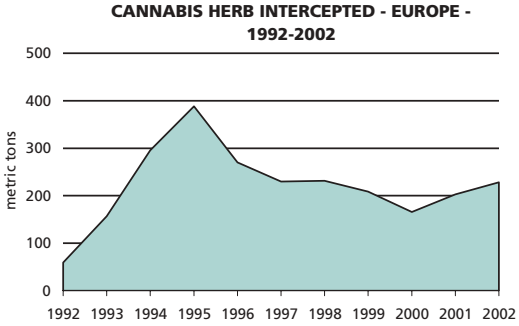
* data refer to 2001.

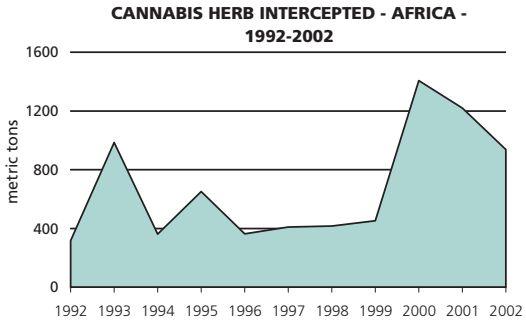
Fig. 98: Global seizures of cannabis herb, 1992 -2002

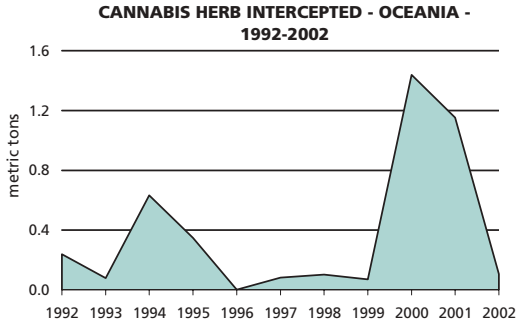




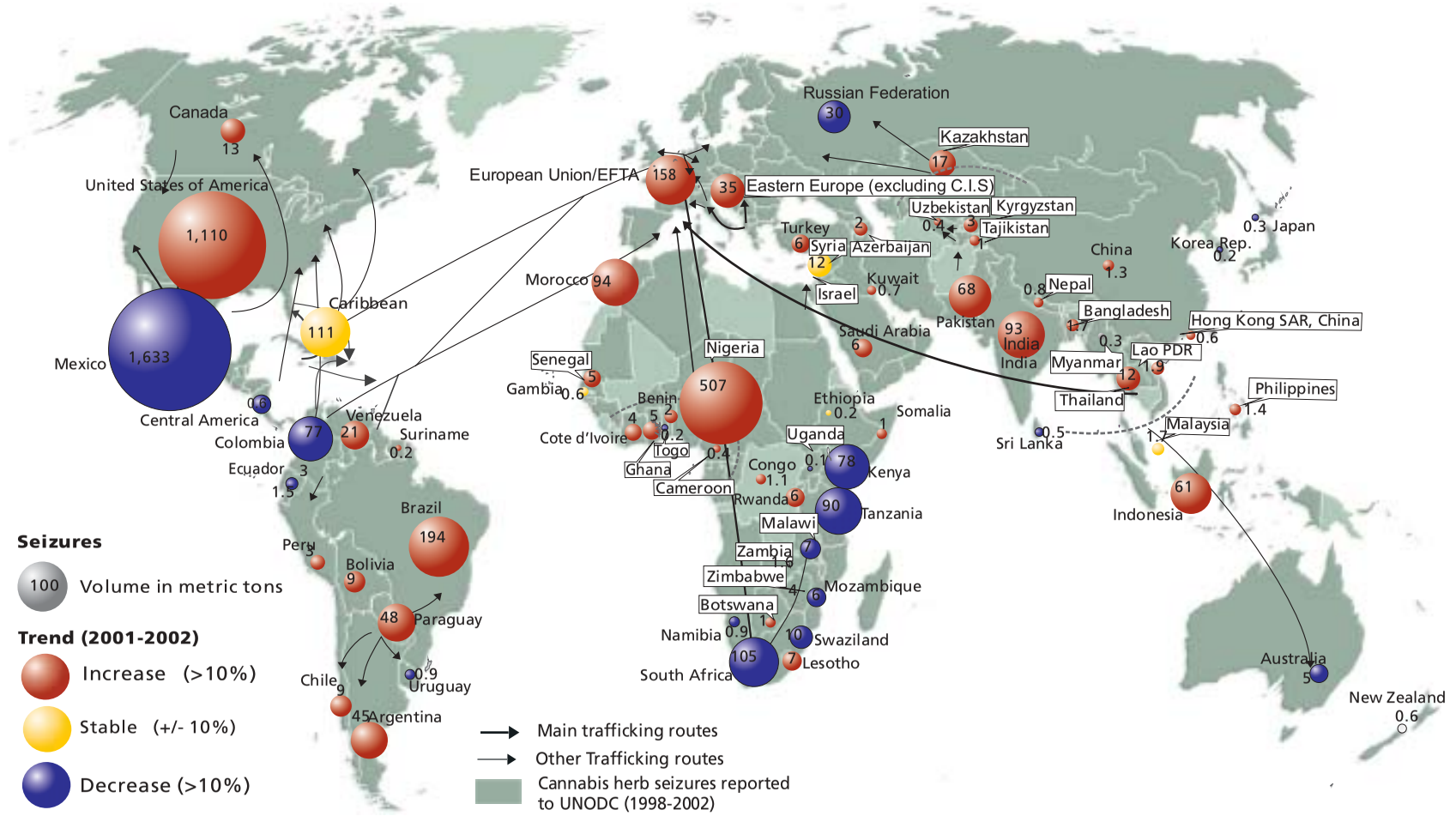








Map 15: Cannabis herb seizures 2001 - 2002: extent and trends (countries reporting seizures of more than 10 kg.)



Note: Routes shown are not necessarily documented actual routes, but are rather general indications of the directions of illicit drug flows.

(115 countries), amphetamines (97 countries) or ecstasy (84 countries). Following a decline in the 1980s, cannabis herb seizures doubled over the 1992-2002 period. In 2002, however, seizures remained basically stable. This was a consequence of declines reported from Africa and Oceania, offsetting increases in Europe and in the Americas.

Trafficking is concentrated in the Americas and in Africa

There is a concentration of cannabis herb seizures in the Americas (66% of all seizures over the 2001-2002 period), notably in North America (58%), and in Africa (23%). Asia accounted for 6%, Europe for 5% and Oceania for less than 1% of global cannabis herb seizures.

The largest cannabis herb seizures in 2002 were, once again, reported from Mexico (34% of global seizures) and the USA (23%), followed by Nigeria (11%), Brazil (4%) and South Africa (2%).

2.3.2.2. Trafficking in cannabis resin

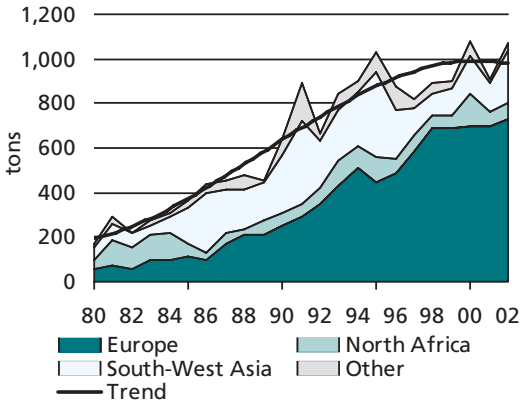
Cannabis resin seizures increased in 2002

At the global level slightly more than 1,000 tons of cannabis resin were seized in 2002, about the same as in 2000, though more than in 2001 (+18%). Seizures increased in Europe in 2002 (6%), in North Africa (9%) and strongly in South-West Asia (22%), reflecting a strong increase of cannabis production in Afghanistan. The long-term trend of cannabis resin seizures showed a strong increase between 1980 and the mid 1990s, followed, despite the 2002 increase, by stabilization thereafter.

Seizures are concentrated in Europe …

Europe accounted for 68%, South-West Asia for 22% and North Africa for 7% of global cannabis resin seizures in 2002. The largest seizures at the global level have been reported repeatedly from Spain (53% of global cannabis resin seizures in 2002), followed by Pakistan (8%) and Morocco (6%). High levels of cannabis resin seizures in the Near & Middle East / South-West Asia region were also reported from Iran, Afghanistan, Lebanon and in Europe from the UK and France. The largest cannabis resin seizures in Eastern Europe were reported by the Russian Federation.

Fig. 99: Cannabis resin seizures, 1980-2002



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

… and production in North Africa and South-West Asia

In contrast to cannabis herb, production and trafficking of cannabis resin is more concentrated. There were 40 countries identified as sources of cannabis resin in 2002. Most of these countries, however, only produce small amounts. Large-scale production is concentrated in two areas: Morocco in North Africa and Pakistan/Afghanistan in South-West Asia. In addition, significant amounts of cannabis resin production have been reported from Central Asia, Lebanon, Nepal, and India and, in the Americas, from Jamaica.

Europe is the main destination

Outside the main production areas, Europe is the main consumer region. (Within Europe only Albania has been cited by some of its immediate neighbours as a source of cannabis resin). The vast majority of West Europe's cannabis resin imports (some 80%) come from Morocco. France, for instance, reported that 82% of the cannabis resin found on its market in 2002 originated in Morocco. Belgium estimated 80% coming from Morocco, Sweden 85%, and the Czech Republic 70%. Spain, Italy, Denmark, Finland and Ireland reported that almost all of their cannabis resin originated in Morocco. The UK estimated that the bulk of their cannabis resin came from Morocco via the Iberian Peninsula, France and the Benelux countries. Similarly, Germany found much of its cannabis resin coming from Morocco, via Spain and the Netherlands.

The second largest source of cannabis resin for countries in Europe is Afghanistan/Pakistan (10% of seizures in Belgium; 30% in the Czech Republic; and about half in the Russian Federation). Though several European

countries cite Pakistan (and not Afghanistan) as a source, the Pakistani authorities estimate that much of the cannabis resin found on their market originates in Afghanistan. Iran also reported a strong increase of cannabis resin imports from Afghanistan in recent years. Turkey reported that traffickers obtained cannabis resin in Iran for final destination in Germany. Afghan cannabis resin also leaves the country via its northern borders. Tajikistan reported that 80% of seized cannabis resin, which originates almost exclusively from Afghanistan, was destined for the Russian Federation and a further 10% for other Central Asian countries.

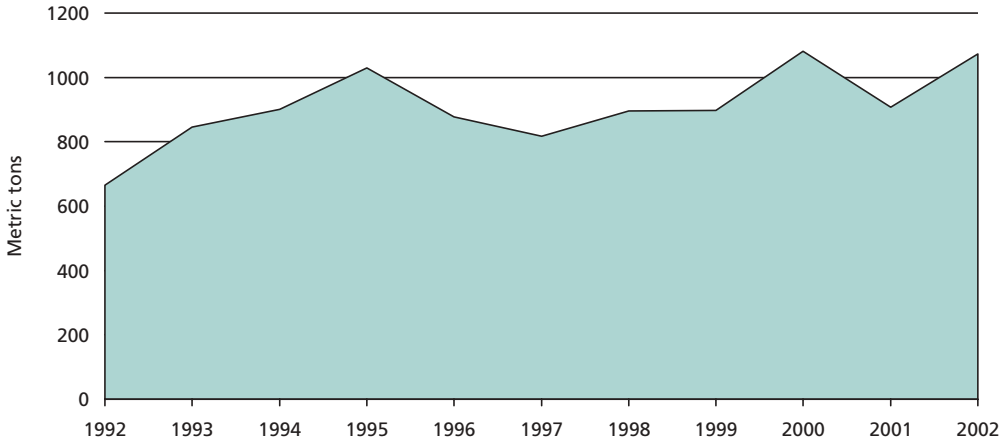
Cannabis resin produced in Central Asia also plays an important role in the CIS region. The Russian authorities estimate that about 30% of cannabis resin imported into their country originates Kazakhstan and 20% in Kyrgyzstan. Some 30% of imports are destined for re-export to the Baltic countries. This is confirmed indirectly by reports from some of the Baltic countries. Lithuania, for instance, reported that 50% of the cannabis resin on its market originated in Central Asia. (Estonia, in contrast, reported that the bulk of cannabis resin seized in the country was shipped via Spain). Some cannabis resin is re-exported from Russia to the Czech Republic as well as to the Netherlands and the UK. Overall cannabis resin exports to Europe are estimated to amount to some 10% of Russian Federation's total supply (domestic production and imports).

Trafficking to other regions remains limited

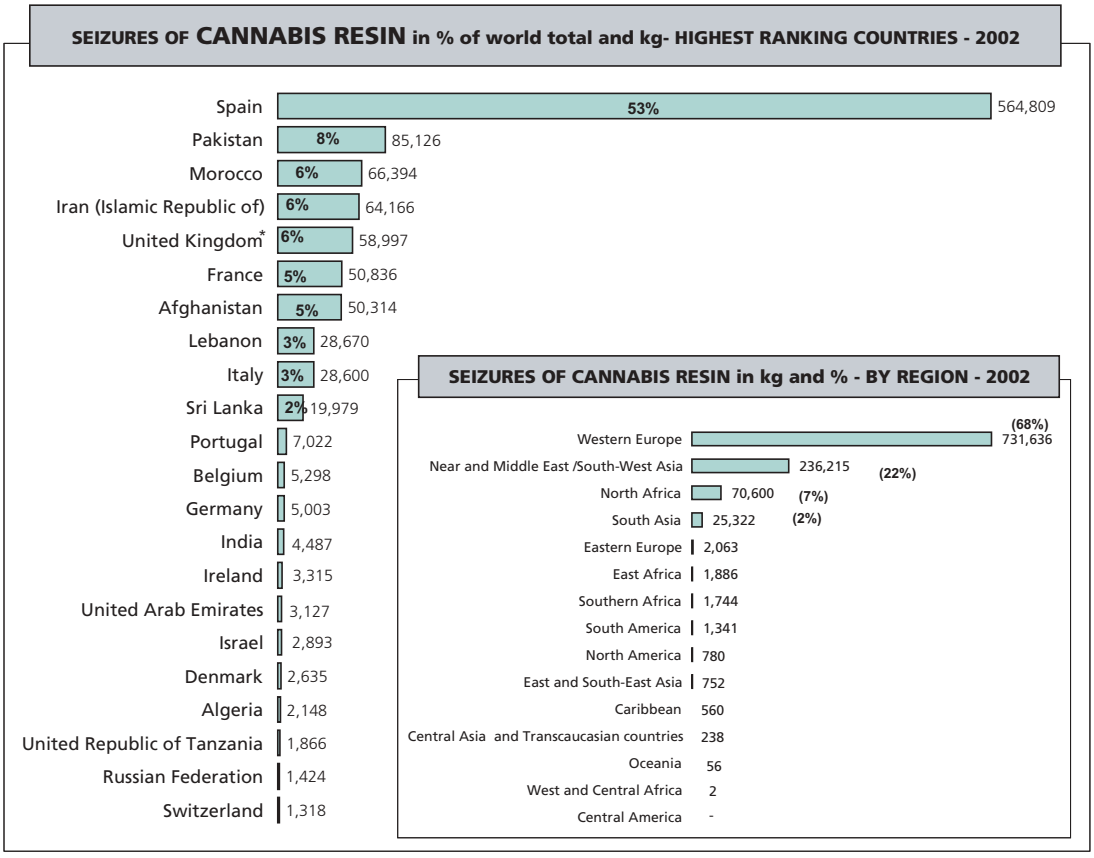
Trafficking of cannabis resin to other regions remains limited. Just 3% of global cannabis resin seizures were made in countries outside Europe, South-West Asia and North Africa in 2002. Of these other regions, the largest trafficking areas are South Asia, followed by Eastern Africa. Cannabis resin trafficked in South Asia originates mainly in Pakistan and in Nepal. Cannabis resin found in Eastern Africa was reported to have been smuggled from Pakistan and India.

Most of the cannabis resin found in Oceania is shipped to Australia via Europe (mainly via the UK, Spain and the Netherlands). Similarly, most of the cannabis resin in the USA was reported to have been trafficked via Europe (90% via the Netherlands) to the USA. Shipments via Canada accounted for 5% of all cannabis resin imports. The main source for Canada's cannabis resin was reported to be Pakistan. Jamaica was reported to be the main source for cannabis resin in the Caribbean region.

Fig. 100: Global seizures of cannabis resin, 1992 - 2002

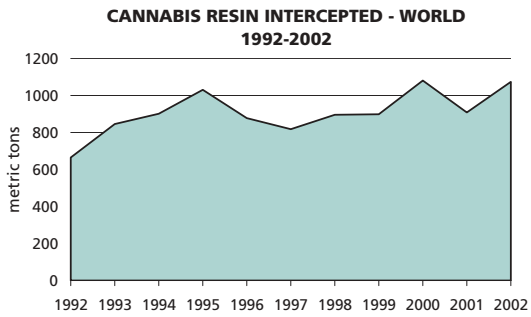


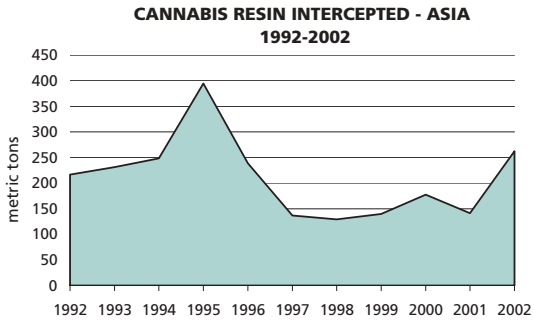
Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Metric tons	665	846	901	1,030	877	818	895	898	1,081	907	1,073

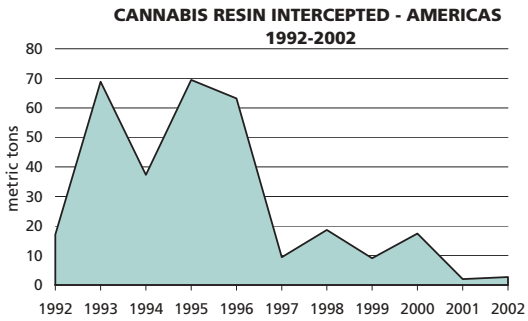


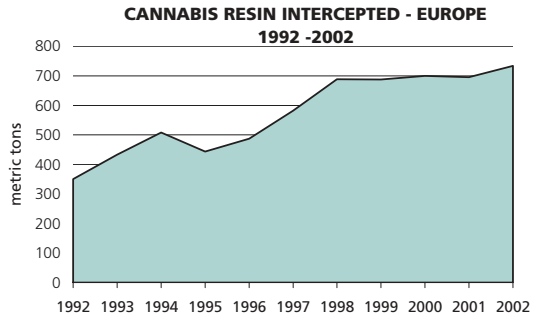
* data refer to 2001.

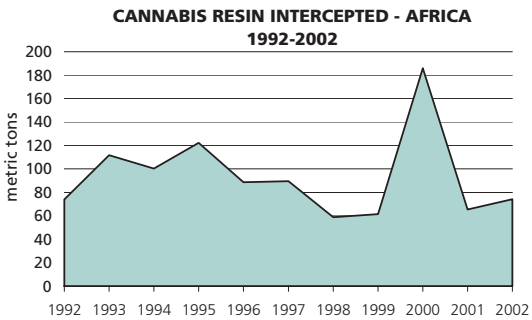
Fig. 101: Cannabis interception

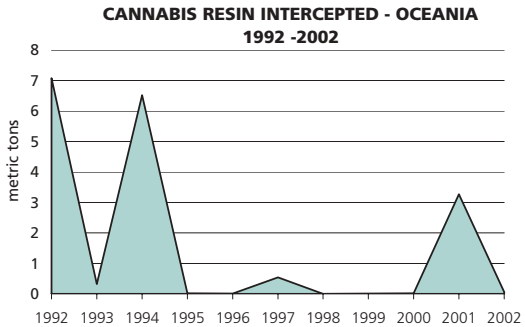




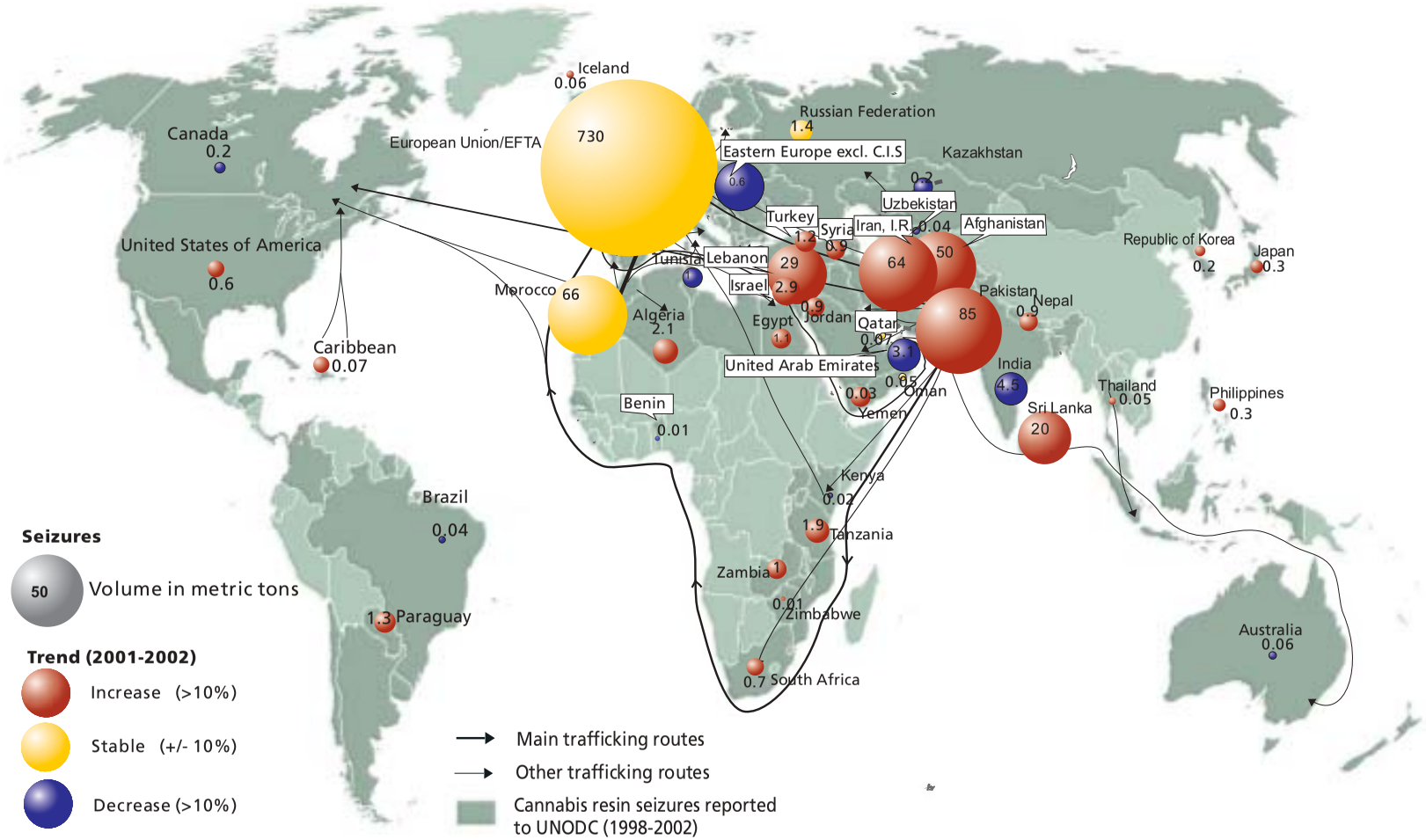








Map 16: Cannabis resin seizures 2001 - 2002: extent and trends (countries reporting seizures of more than 10 kg.)



Note: Routes shown are not necessarily documented actual routes, but are rather general indications of the directions of illicit drug flows.

2.3.3. Abuse

2.3.3.1. Extent

Cannabis is the most widely consumed illicit drug. Some 146 million people or 3.7% of the population 15-64 consumed cannabis in 2001-2003.

The number of people treated for cannabis abuse is much smaller than for opiates or cocaine. The proportions of patients treated for cannabis abuse, has, however, shown an upward trend in several parts of the world in recent years, reflecting growing consumption, almost unlimited supply and the availability of more potent varieties with a higher THC content.

Though cannabis use continues rising, UNODC's estimate on global cannabis consumption had to be revised downwards compared to last year's estimate (published in *Global Illicit Drug Trends 2003*). Some of the 'decline' was due to a methodological change prompted by the new Annual Reports Questionnaire[x]. Moreover, some UNODC estimates, when replaced with actual household survey data, turned out to be smaller than previously expected. The most striking example in this regard was Brazil, which affected estimates for South America as a whole. While previous estimates, derived from student studies, suggested that Brazil's cannabis consumption was significantly above the global average, estimates reported by the Brazilian authorities last year (based on a national household survey) showed an annual prevalence rate of just 1% among the adult population. This was clearly below the global average. As a result, UNODC's overall estimates for South America (including the Caribbean and Central America) had to be cut by half (to 6.5 million persons or 2.4% of the population age 15-64).

Table 11: Annual prevalence estimates of use of cannabis: 2001-2003

	Number of people (in million)	in % of population age 15 - 64
OCEANIA	3.40	16.40
AFRICA	34.60	7.70
AMERICAS	34.90	6.30
- North America	28.50	10.30
- South America	6.50	2.40
EUROPE	28.80	5.30
- West Europe	20.40	6.70
- East Europe	8.40	3.60
ASIA	44.70	1.90
GLOBAL	**146.30**	**3.70**

Cannabis abuse above global average
Cannabis abuse close to global average
Cannabis abuse below global average

Sources: UNODC, Annual Reports Questionnaire data, various Govt. reports, reports of regional bodies, UNODC estimates.

x) In line with a change in the question on prevalence asked in the new Annual Reports Questionnaire, the population base used for calculating the total number of drug users was reduced from 'age 15 and above' to age 15-64', implicitly assuming that no or only negligible cannabis use takes place among the population age 65 and above. As many countries did not increase the reported proportions of drug users among the adult population, the calculated total number of drug users declined.

In terms of average annual prevalence, the reported rates are highest in the Oceania region (16.4%), followed by Africa (7.7%), the Americas (6.3%) and Europe (5.3%). In North America and in Western Europe the rates are 10.3% and 6.6% respectively. The highest levels in the Americas were reported from the USA (11% of the population age 12 and above or more than 13% of the population age 15-64 in 2002). The highest levels in Europe were reported from the UK (10.9% of those age 16-59 in 2003), the Czech Republic (10.9% in 2002), France (9.8% in 2002) and Spain (9.7% in 2001). Cannabis use in Australia affected 15% of the population age 15-64 in 2001.

Relatively low cannabis prevalence rates, in contrast, are reported from countries in Asia (1.9%) mainly reflecting low levels of cannabis use in China and other countries of South-East Asia. In Thailand, for instance, a household survey conducted in 2001 revealed an annual prevalence rate of cannabis use of 1.5% among those age 12-65. Nonetheless, the largest numbers of cannabis users are found in Asia (some 45 million people), which accounts for more than 30% of global cannabis use.

The Americas and Africa account for 24% each of all cannabis use worldwide and Europe for 20%. Cannabis use in Africa is widespread across the continent and particularly high in countries of Western and Southern Africa.

Importance of cannabis use compared to other drugs

In the vast majority of countries, cannabis is the most widely consumed drug[y]. This applies to all countries in the Oceania region, almost all countries in western Europe and North America, most countries in Africa and a majority of countries in Asia. Given this, it is more interesting to identify the countries in which cannabis does not rank 1st.

In some of the East and South East Asian countries, including China, cannabis is reported to rank 3rd after opiates and ATS. In Japan it was reported to rank 3rd after methamphetamine and solvents.

The authorities in the Ukraine report cannabis ranking third after the use of 'kompot' an opium straw extract which is usually injected, and ephedrone (methcathinone) which is often injected as well. In Sweden, Hungary and Slovakia cannabis was reported to rank 2nd after sedatives & tranquilizers (mostly benzodiazepines) and in Croatia, Serbia & Montenegro as well as in Latvia and Lithuania authorities reported cannabis 2nd after opiates.

In Venezuela and El Salvador cannabis use was reported to rank second after cocaine. In Brazil, Panama and Guatemala cannabis use was reported to rank 2nd after benzodiazepines.

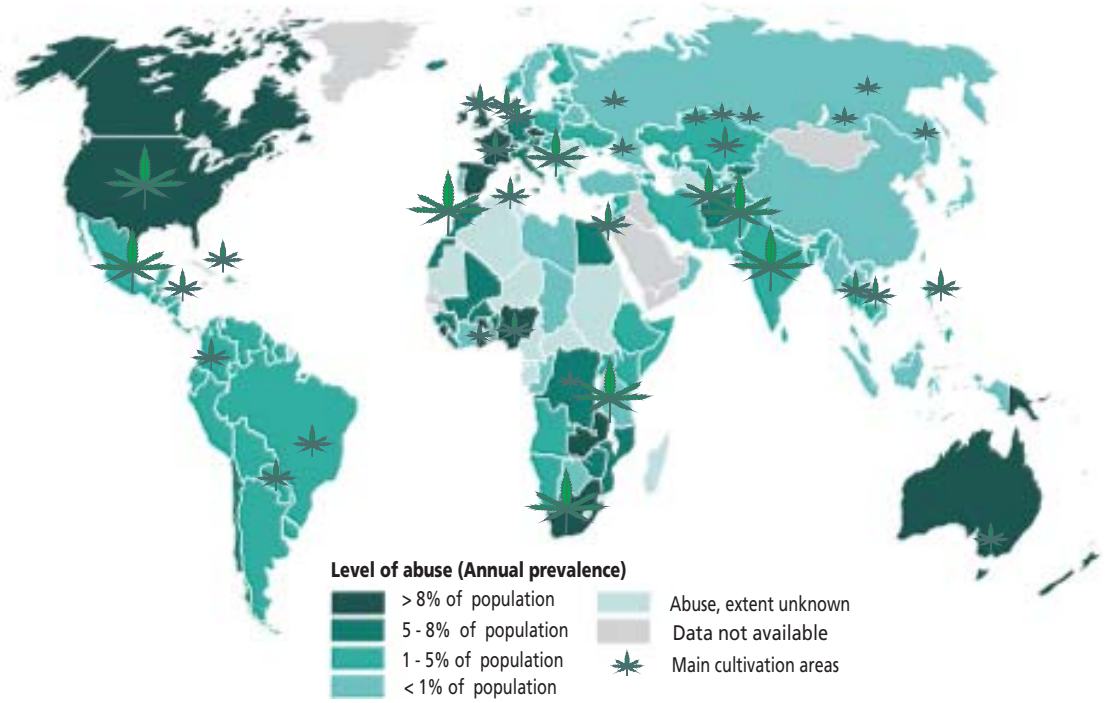
In countries around the Horn of Africa, notably in Yemen, Somalia and Ethiopia, rapid assessment studies revealed that Khat was more widespread than cannabis.

In some countries of the Near and Middle East use of benzodiazepines, opiates or ATS (notably fenetylline) appear to be close to, or exceeding cannabis use.

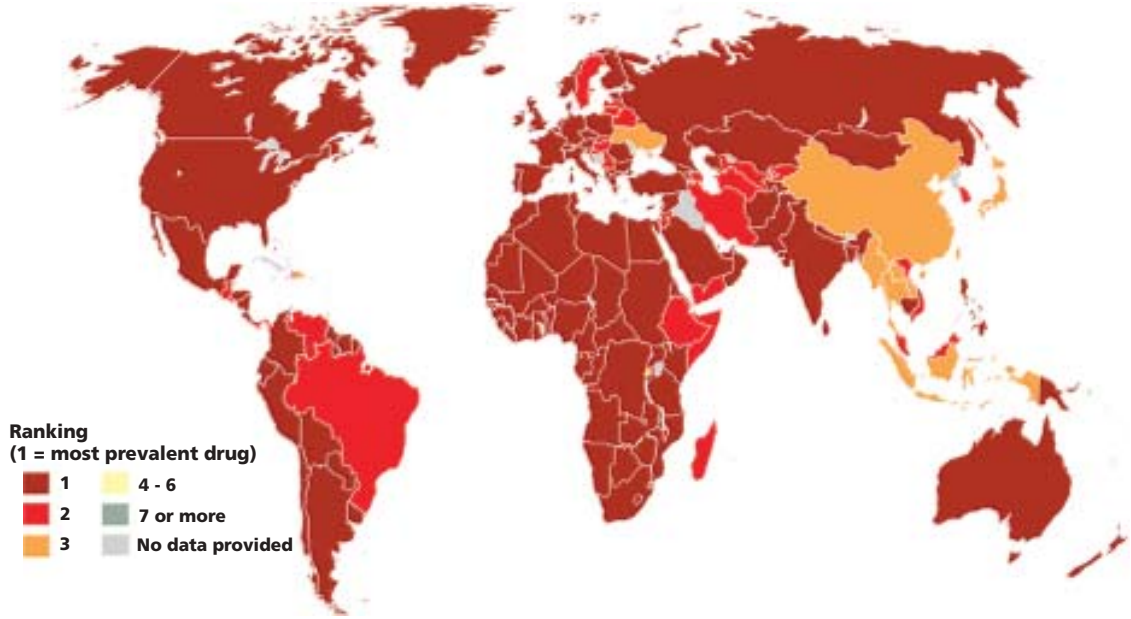
The cannabis ranking for some of the countries mentioned above, however, could change if all of the information were based on household surveys. This is because registration systems in place often have a built-in bias for the identification of drugs other than cannabis.

y) Reference is made to the 'unadjusted ranking' provided by Member States. Subsequent adjustments, as reflected in the ranking of the cannabis map, have been made in order to improve comparability as some countries include alcohol and tobacco as 'drugs', so that cannabis only ranks third in these countries, while most of the countries do not have alcohol and tobacco included in their drug rankings.

Map 17: Use of cannabis 2001 - 2003 (or latest year available)



Map 18: Ranking of cannabis in order of prevalence in 2002 (or latest year available)



Sources: UNODC Annual Reports Questionnaires data, SAMSHA US National Household Survey on Drug Abuse, Iranian Ministry of Health, Rapid Assessement Study and UNODC ARQ,Council of Europe, ESPAD.

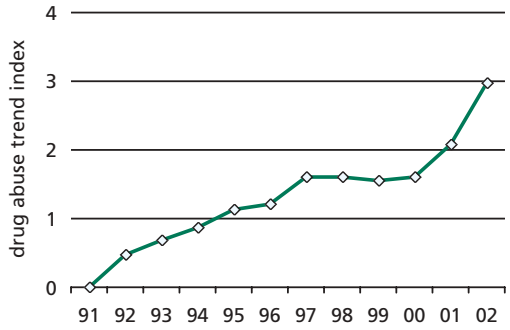
2.3.3.2. Trends

Overview

Cannabis use rises again strongly…

Based on UNODC's Drug Abuse Trend Index global cannabis consumption continued its steep increase over the 2000-2002 period. This follows a gradual increase in the early 1990s (1991-1997) and some stabilization over the 1997-2000 period.

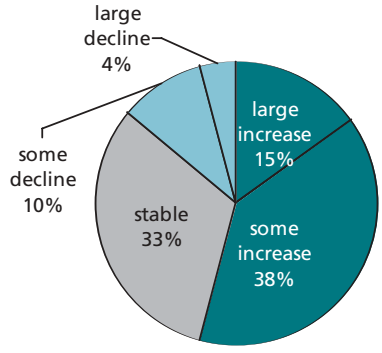
Fig. 102: Cannabis consumption trend based on national experts' perceptions



Source: UNODC, Annual Reports Questionnaire Data.

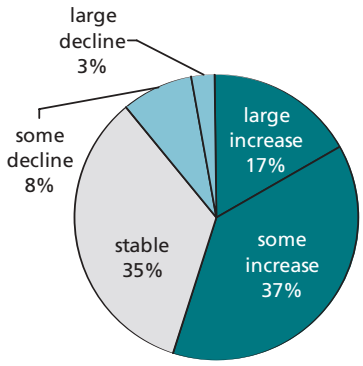
There are significantly more countries reporting rising levels of cannabis use than there are countries reporting falling levels. Overall, 54% of countries reporting perceived cannabis consumption trends in 2002 (n = 95 countries) saw an increase, while only 11% reported a decline. A year earlier, 53% of those countries reported an increase and 14% saw a decline.

Fig. 103: Cannabis use trends in 2001 (n = 95 countries)



Source: UNODC, Annual Reports Questionnaire Data.

Fig. 104: Cannabis use trends in 2002 (n = 95 countries)



Source: UNODC, Annual Reports Questionnaire Data.

Increases for 2002 were reported from a majority of countries in Africa, South America, Europe and several parts of Asia, excluding most countries in South-East Asia and Australia. In North America, the trend was basically stable.

AMERICAS

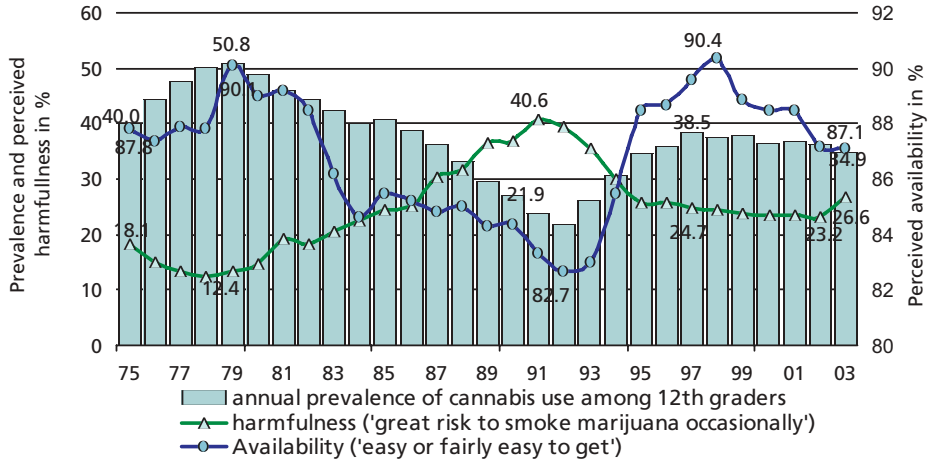
Cannabis use remains largely stable in North America

Data for the USA, the world's largest cannabis market in economic terms, showed strong increases in the 1960s and the 1970s, followed by significant declines in the 1980s and increases in the 1990s. Annual prevalence of cannabis use among the general population (age 12 and above) fell from 16.6% in 1979 to 7.9% in 1992, and rose again to 9.3% in 2001.

In 2002 11% of the US population age 12 and above consumed cannabis. This figure is not directly comparable with the results of previous years due to changes in methodology which were aimed at reducing under-reporting. Based on life-time prevalence data collected in 2002, it was found that there was some increase in life-time prevalence among those 18-25 year olds (53% in 2001 to 53.8% in 2002) and some decline among those 12-17 year olds (from 21.9% to 20.6%). This suggests that overall the level of cannabis use remained largely stable in 2002 as compared to a year earlier.

Regular high-school surveys revealed a gradual decline in cannabis consumption after 1997. Annual prevalence of cannabis use among 12th grade high-school students fell slightly from 38.7% in 1997 to 37% in 2001,

Fig. 105: USA: cannabis prevalence, perceived harmfulness and availability among 12th graders



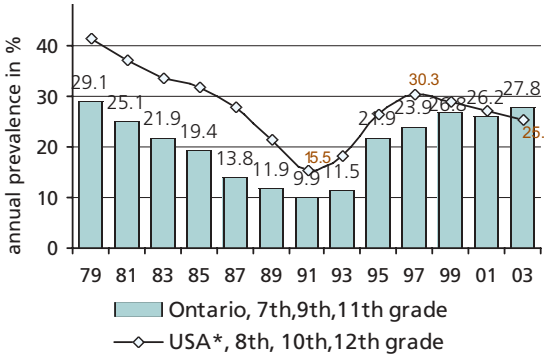
Source: NIDA, *Monitoring the Future*.

36.2% in 2002 and 34.9% in 2003. There is a strong negative correlation between perceived harmfulness ('great risk to smoke marijuana occasionally') and annual prevalence of cannabis use (R = -0.96 over the 1975-2003 period) and a positive correlation between perceived availability ('easy or fairly easy to get') and annual prevalence of cannabis use (R = +0.67 over the 1975-2003 period or +0.96 over the 1990-2003 period). Data suggest that the decline of cannabis use in the 1980s was a consequence of a rising awareness of the negative consequences of cannabis consumption and some reductions in availability (reflecting large-scale eradications in Latin America). Similarly, the strong increase in cannabis use in the early 1990s occurred in parallel to a decline in perceptions that cannabis was harmful (as prevention campaigns of the 1980s became outdated) and a rising market supply (due mainly to a rise in domestic production). Finally, the stabilization / decline of cannabis use after 1997 took place in parallel to some reduction in availability (reflecting *inter alia* intensified domestic eradication and eradication of cannabis plant in Mexico). The downward trend in the harmfulness perceptions of the early 1990s gave way to a stabilization, following major investment into new prevention efforts. All of this led to declining levels of consumption among high-school students over the 1997-2003 period.

However, data also show that availability of cannabis remains high and that the perceived harmfulness is limited as compared to other drugs. In 2003 16% of 12th grade students considered it to be a 'great risk' to use cannabis once or twice. The corresponding ratios for considering it a 'great risk' to use amphetamines, cocaine or heroin, once or twice, were significantly higher (37%, 46% and 58%, respectively). While 87% of the students surveyed reported that cannabis was easily available, the corresponding ratios for amphetamines, cocaine or heroin were significantly lower (55%, 37% and 28%, respectively). Probably as a consequence of this, the use of cannabis (annual prevalence of 34.9% among 12th graders in 2003) is significantly more widespread than that of amphetamines (9.9%) cocaine (4.8%) or heroin (0.8%).

In Canada's most populous province, Ontario, high-school surveys revealed a pattern largely similar to that observed in the USA: increases in the 1970's, declines in the 1980's, followed by significant increases in the

Fig. 106: Cannabis use among high-school students in Ontario (Canada) and in the USA



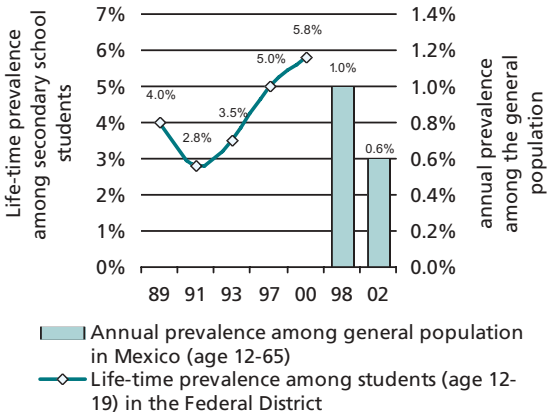
* US data for 1979 to 1989 are estimates extrapolated from survey results of 12th grade students

Sources: Centre for Addiction and Mental Health, *Drug Use Among Ontario Students 1977-2003* and NIDA, *Monitoring the Future*.

1990s and a stabilization in subsequent years. Over the 1999-2003 period, stable to slightly increasing levels were reported from Ontario. With an annual prevalence rate of 27.8% among Ontario high-school students (7th, 9th and 11th graders), cannabis use was still lower than in the late 1970s (29.1% in 1979). However, the prevalence rate was - for the first time - higher than in the USA, mainly a consequence of the decline of cannabis prevalence rates in the USA over the 1997-2003 period (from 30.3% to 25.3% among 8th,10th,12th graders). One in ten of Ontario high-school cannabis users was found to have a dependence problem with cannabis. Annual prevalence of cannabis use among the general population affected 11.2% (age 18 and above) in Ontario in 2001, about the same level as reported from the USA and about the same level as reported a year earlier (10.8%), though up from 6.2% reported in 1992.

In Mexico, one of the largest source countries of cannabis herb, household surveys conducted in 2002 showed a decline in marijuana use following years of increase in the 1990s. Annual prevalence among the general population age 12-65 fell from 1% in 1998 to 0.6% in 2002. It continues to be significantly lower than in the USA or Canada. Cannabis use is lower in southern Mexico (lifetime prevalence of 2.2% in 2002) and in central Mexico (3%) than it is in the northern states (5.8%).

Fig. 107: Mexico: cannabis use, 1989-2002

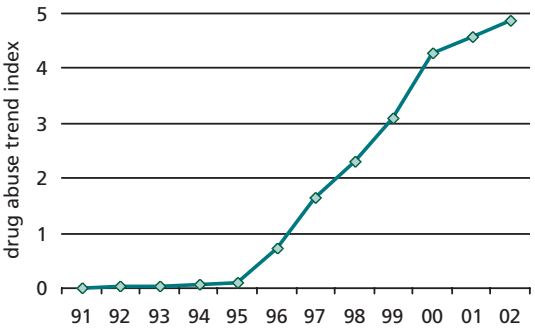


Sources: Consejo Nacional Contra las Adicciones (CONADIC), Encuesta Nacional de Adicciones 2002 y La Secretaría de Educación Pública en coordinación con el Instituto Nacional de Psiquiatría, Consumo de Drogas, Alcohol y tabaco en Estudiantes del Distrito Federal, 2000, Reporte Estadístico.

Cannabis use continues rising in South America (incl. the Caribbean and Central America)

In contrast to stable trends in North America, cannabis consumption (according to national experts' perceptions reflected in UNODC's Drug Abuse Trend Index) continues rising in South America (including the Caribbean and Central America). A rising trend in cannabis use across the region was observed as of the mid 1990s. In 2002 14 out of 18 reporting countries experienced a rise in cannabis use, and only one country (Chile) reported a decline.

Fig. 108: South America: cannabis consumption trend based on national experts' perceptions

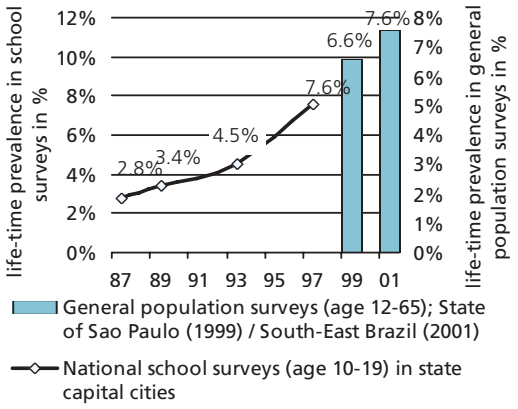


Source: UNODC, Annual Reports Questionnaire Data.

In Brazil, the largest country of South America, a national household survey was conducted in 2001. The survey revealed a life-time prevalence among the general population (age 12-65) of 7.6% in south-eastern Brazil, up from 6.6% in 1999 (state of Sao Paulo which forms part of the region of south-eastern Brazil). This confirmed the upward trend previously seen in school surveys. Annual prevalence of cannabis use was found to affect 1% of the population age 12-65 in 2001. The prevalence of cannabis use is thus clearly lower in Brazil than in the USA, but higher than in Mexico.

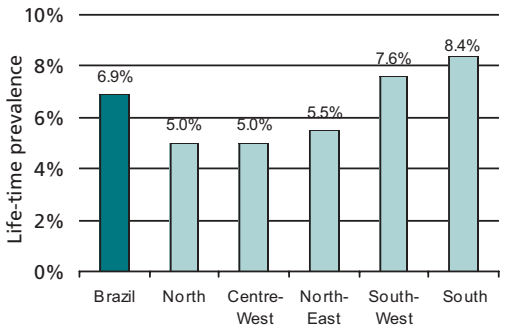
A regional breakdown shows that the highest levels of cannabis use are found in southern Brazil (close to the border with Paraguay, a major cannabis producer in the region), followed by the neighbouring region of south-eastern Brazil which includes the states of Sao Paulo, Rio de Janeiro, Minas Gerais and Espirito Santo. In contrast, cannabis use seems to be relatively low in the northern parts of the country.

Fig. 109: Brazil: Life-time prevalence of cannabis use, 1987-2001



Sources: CEBRID, *I Levantamento Domiciliar Sobre O Uso de Drogas Psicotrópicas no Brasil 2001* and CEBRID, *I Levantamento domiciliar Nacional Sobre O Uso de Drogas Psicotrópicas - Estudo envolvendo as 24 Maiores Cidades do Estado de São Paulo 1999, CEBRID, IV Levantamento Sobre O Uso de Drogas entre Estudantes de 1 e 2 graus am 10 Capitais Brasileiras, 1997.*

Fig. 110: Brazil: Life-time prevalence of cannabis use among the general population (age 12-65)

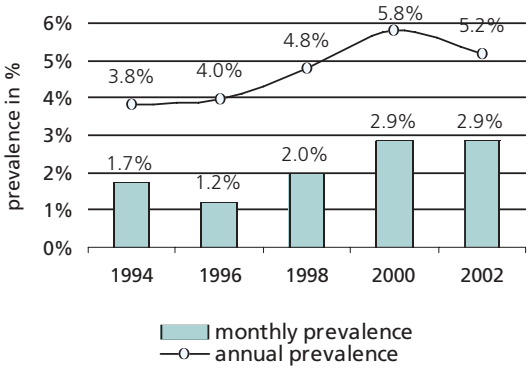


Sources: CEBRID, *I Levantamento Domiciliar Sobre O Uso de Drogas Psicotrópicas no Brasil 2001.*

Argentina reported higher levels of cannabis use than in Brazil. A national household survey conducted in 1999 found an annual prevalence rate of 3.7% and a life-time prevalence rate of 8.5% among the general population (age 16-64). Argentina reported an continuous increase of cannabis use in 2000, 2001 and 2002.

In neighbouring Chile, 5.2% of the general population (age 12-64) used (annual prevalence) cannabis in 2002, i.e. more than in Brazil or Argentina. Following increases of cannabis consumption in the 1990s there was, however, some decline in the annual prevalence rate of cannabis use between 2000 and 2002. Yet, monthly prevalence rates of cannabis use remained stable between 2000 and 2002 suggesting that the decline affected mainly experimental users.

Fig. 111: Chile: Cannabis use among the general population (age 12-64), 1994-2002



Source: CONACE, Estudio Nacional de Drogas en la Población General de Chile, 2002, Santiago de Chile, 2003.

In Bolivia cannabis use was lower than in Chile or Argentina. A general population survey conducted in 2000 by the Centro Latinoamericano de Investigación Cientifica (CELIN)[z] found an annual prevalence rate of 2.2% among the population age 12 and above and a life-time prevalence rate of 3.7% in 2000 (which was still lower than that reported from Brazil). Cannabis use was, however, increasing in Bolivia throughout the 1990s. The monthly prevalence rate of cannabis use rose from 0.2% of the population age 12-50 in 1992 to 1.4% in 2000. School surveys, conducted in 2000 and in 2002, suggest that the upward trend continued.

In contrast, studies conducted in Peru suggest that cannabis use has remained basically stable since the mid 1990s. The life-time prevalence rate of cannabis use was 5.8% of the general population age 12-64 in 2002/2003, which was almost the same as in 1995, 1998 and 2001 (and less than in 1997). Annual prevalence of cannabis use concerned 1.8% of the population age 12-64 and was thus slightly lower than in Bolivia.
In Ecuador, on the other hand, school surveys suggest

z) Centro Latinoamericano de Investigación Cientifica (CELIN), El Use Indebido de Drogas en Ciudades Bolivianas (Estudio Urbano, Año 2000, Cuadros Estadísticos.

Table 12: Life-time prevalence of cannabis use among secondary school students in Latin America in 2002 or latest year available

	Year	Age group	Life-time prevalence in %	Source
St. Lucia	2002	13 - 20	27.4	UNODC. GAP
Jamaica	1997	12 – 16	26.9	UNODC, ARQ
Barbados	2002	12 – 18	23.3	UNODC, ARQ
Chile	2001	13 – 18	23	UNODC, ARQ
St. Vicent and the Grenadines	2002	13 - 19	20.6	UNODC, GAP
Belize	2002	12 – 18	20.5	CICAD
Bahamas	2002	11 – 19	14.9	UNODC, ARQ
Guatemala	2002	12 – 20	12.3	UNODC, ARQ
Uruguay	2001	13 – 17	11.9	UNODC, ARQ
Colombia	2001	10 – 24	8.9	UNODC, ARQ
Ecuador	2001/02	12 – 18	8.6	CICAD
Brazil	1997	10 – 19	7.6	UNODC, ARQ
Guyana	2002	12 – 18	7.1	CICAD
Panama	2001/02	12 – 18	6.9	CICAD
Nicaragua	2002	13 – 18	6.7	UNODC, ARQ
Bolivia	2002	12 – 21	6.4	UNODC, ARQ
Suriname	2002	12 – 16	6	UNODC, ARQ
Mexico	2000	12 – 20	5.8	UNODC, ARQ
Argentina	2001	12 – 18	5.3	UNODC, ARQ
Paraguay	2001/02	12 – 18	4.3	CICAD
Honduras	2002	15 – 25	2.7	UNODC, ARQ
Venezuela	2001	12 – 21	2.3	UNODC, ARQ
Dominican Republic	2000	12 – 20	2.2	UNODC, ARQ
Costa Rica	2001	12 – 18	1.7	UNODC, ARQ
Average: unweighted			11	
weighted by population			7.4	
Memo: USA	2003	13-17/18	33.3	NIDA, Monitoring the Future

Sources: UNODC, Annual Reports Questionnaire Data, UNODC, Global Assessment Programme (GAP), OAS/CICAD, Resumen Estadístico sobre Drogas, 2003 and OAS/CICAD, Drug Prevalence Survey of Secondary School Students, 2003 - a comparison report of three Caribbean countries: Barbados, Belize and Guyana.

that cannabis use continued to rise (from a life-time prevalence of 3.9% among those 13-18 year olds surveyed in 1998 to 8.6% of those 12-18 year olds surveyed in 2001/02). Similarly, strong increases among secondary school students were reported from Panama and Guatemala.

Authorities in Colombia, Venezuela, Suriname, Argentina, Paraguay, Uruguay, Costa Rica, El Salvador, Guatemala, Barbados and Bahamas all reported rising levels of cannabis consumption in 2002.

High-school surveys conducted in recent years in Latin America show that life-time prevalence of cannabis use among secondary school students is particularly high in some of the Caribbean countries (St. Lucia, Jamaica and Barbados), where about a quarter of all students have experimented with cannabis. The highest levels of any South-American country were reported from Chile followed by Colombia. The highest levels in Central America were reported by Belize and Guatemala. Despite these high levels, cannabis use is still less prevalent than in the USA.

Approximately 11% (unweighted average) of secondary school students in Latin America experimented with cannabis. This is a third of the corresponding rate reported from the USA. However, data are not always directly comparable. In some countries the age group of students 17 years and above (which has the highest prevalence rate) is under-represented because most pupils leave the school earlier. Thus for some of the countries showing a low cannabis use prevalence, the actual reason is that older students, who would have higher prevalence rates, are under-represented in these countries.

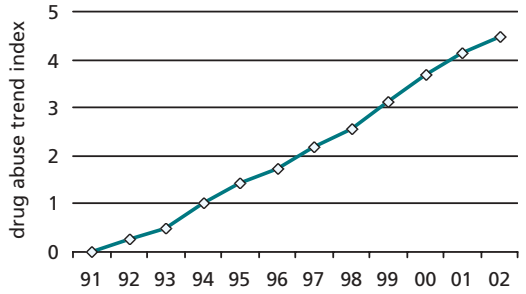
EUROPE

Cannabis use continues to rise in Europe

Cannabis use has increased in Europe throughout the last decade - as reflected in UNODC's Drug Abuse Trend Index. This is unlike the situation in North America where cannabis use stabilized or declined in recent years. During that period several European countries have been softening their drug laws with regard to cannabis.

A stabilization of cannabis consumption in Europe was reported by the Nordic countries (Finland, Norway and Sweden), the UK (following a decade of massive increases) and a few other countries. Apart from these exceptions, most countries of continental Europe continued reporting rising levels of cannabis use.

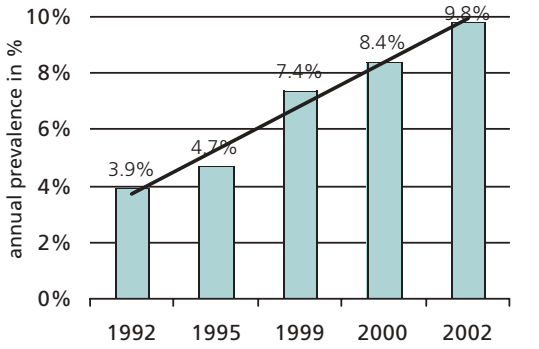
Fig. 112: Europe: cannabis consumption trend based on national experts' perceptions



Source: UNODC, Annual Reports Questionnaire Data.

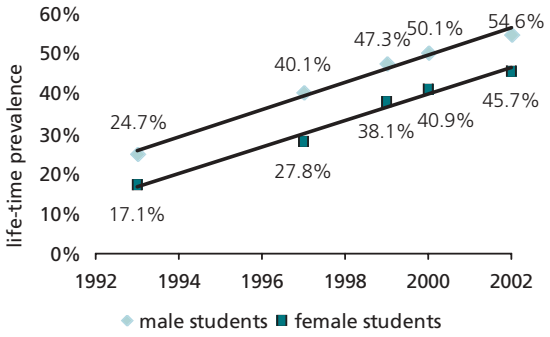
In France, for instance, annual prevalence of cannabis use more than doubled between 1992 and 2002 (from 3.9% of the population age 18-74 to 9.8% of the population age 15-64). Similarly, life-time prevalence of cannabis use among 17 year olds more than doubled between 1993 and 2002 affecting 44.7% of all students age 17 in 2002.

Fig. 113: France: annual prevalence of cannabis use among the general population age 15-64, 1992-2002



Sources: EMCDDA, Data Library and UNODC, Annual Reports Questionnaire Data.

Fig. 114: France: life-time prevaleence of cannabis use among 17 year olds, 1992-2002

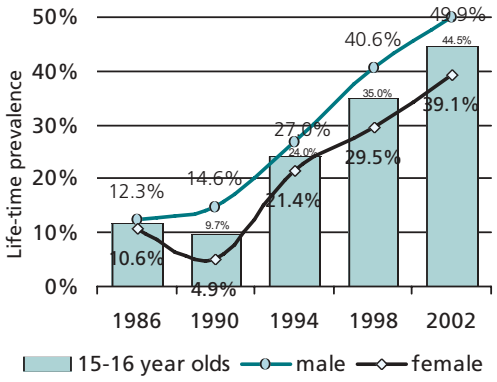


Sources: INSERM 1993, CADIS-OFDT 1997, ESPAD 1999, EESCAPAD 2000 and 2002 quoted in OFDT, *Drogues et Adolescence*, Sept. 2003.

High prevalence rates among pupils were also reported from Switzerland. School surveys conducted among 15-16 year olds revealed a life-time prevalence rate of 44.5% for 2002, signalling a four-fold increase as compared to 1990 or the mid 1980s. The prevalence of 15-16 year old students who used cannabis several times rose from 25% in 1998 to 32% in 2002 period, equivalent to a 25% increase over this period. Some of the rise can be linked to availability which is, in general, better than in several neighbouring countries. Apart from the black market, Switzerland has some 200 retail outlets across the country where a broad range of cannabis products (for decoration purposes, etc.) can be bought,

including - until recently - cannabis products that had a THC content sufficient to be suitable for smoking. Against this background and the large spread of cannabis in the country, the Swiss upper house passed a bill to fully decriminalize cannabis, including consumption, distribution and production. However, the bill was rejected by the lower house in 2003. Cannabis use in

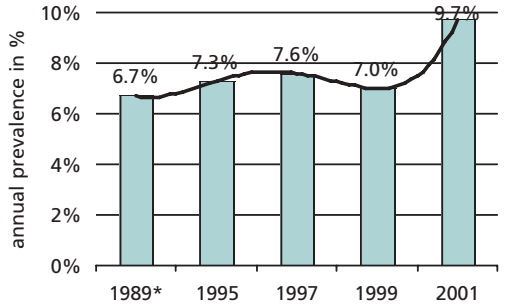
Fig. 115: Switzerland :Cannabis use among 15-16 year olds, 1984-2002



Source: SFA/ISPA, *Trends im Konsum psychoaktiver Substanzen von Schülerinnen und Schülern in der Schweiz*, Lausanne 2003.

Spain was stable during the 1990s but increased significantly over the 1999-2001 period (from 6.8% to 9.9% among the general population age 15-64) to levels slightly higher than in France. School surveys also confirmed an upward trend of cannabis use over the 1998-2000 period. Given the existence of good prevention programmes, the increase can possibly be explained as the result of larger supply - probably due to the

Fig. 116: Spain: annual prevalence of cannabis use among the general population age 15-64, 1989-2001

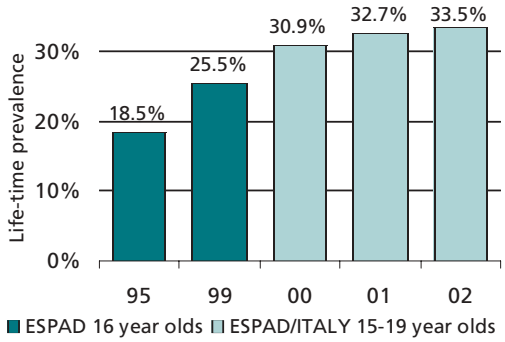


* municipality of Madrid.

Sources: Ministerio del Interior, *Observatorio Español sobre Drogas, Informe No 6 Nov. 2003* and UNODC, Annual Reports Questionnaire Data.

increases of cannabis production in neighbouring Morocco and the role of Spain as a major transhipment location. Cannabis prevalence rates above the national average were reported - inter alia - from the Baleares (18.3%), the Basque region, located close to France (13.7%) and Madrid (12.7%).

Fig. 117: Italy: Life-time prevalence of cannabis use among secondary school students, 1995-2002



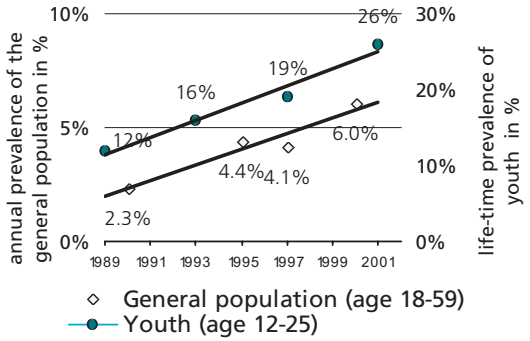
Sources: Council of Europe, The 1995 ESPAD Report and The 1999 ESPAD Report, and Ministero del Lavoro e delle Politiche Sociali, *Relazione Annuale al Parlamento sullo Stato delle Tossicodipendenze in Italia 2002*.

In Italy, most of the increase in cannabis use took place in the second half of the 1990s (1995-1999). Some (minor) increases in cannabis use occured between 2000 and 2002. A general population survey conducted in 2001 found an annual prevalence of 6.4% among the population age 15-44, suggesting that cannabis use in Italy is less widespread than in Spain or France.

Both general population surveys and youth surveys in Germany showed a clear upward trend of cannabis use over the last decade. The annual prevalence of cannabis use among the general population and life-time prevalence among youth more than doubled. Most of the increase took place in the 'new provinces' (former East Germany). A continuation of this upward trend was also reported by the German authorities for the year 2002. Nonetheless, data also show that cannabis use in Germany (annual prevalence of 6% among the population age 18-59 in 2000) is lower than amongst its neighbours - France, Switzerland and the Czech Republic - and lower than in the UK or Spain.

Some increase in cannabis use was also reported from the Netherlands between 1997 and 2001 (from 5.5% to 6.1% of the population age 15-64). In Amsterdam, the city with the highest cannabis use levels in the Netherlands (more than twice the national average), annual

Fig. 118: Germany: Cannabis use among the general population and among youth, 1989-2001

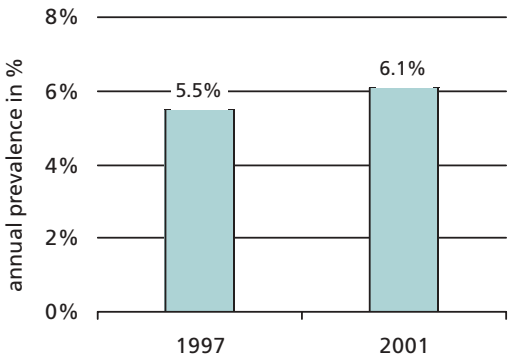


* estimate for 1989 based on overall prevalence of illegal drug use in West Germany.

Sources: UNODC, Annual Reports Questionnaire Data, Ministry of Health, *Repräsentativerhebung Drogen* 1995, 1997 and 2000, BZgA, *Die Drogen-affinität Jugendlicher in der Bundesrepublik Deutschland* 1997 and 2001.

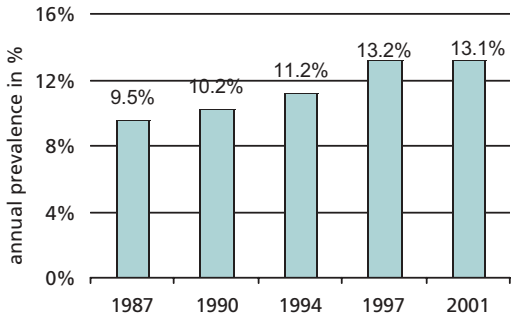
prevalence of cannabis use rose from 9.5% of the population age 12 and above in 1987 to 13.2% in 1997. It remained basically unchanged over subsequent years (13.1% in 2001)[aa]. Over the same period stricter regulations led to an (approximately) 20% decline in the number of 'coffee shops' in Amsterdam (from 340 in 1997 to 280 in 2001 and 270 in 2002)[ab] . Some 40% of the cannabis in the Netherlands is bought by the end-consumers in such 'coffee shops' (ranging from 37% of the 12-17 year old cannabis users to 47% of cannabis users age 18 and above)[ac]. Increases in cannabis use over the 1997-2001 period, in contrast, were reported from Rotterdam, one of the main cannabis transhipment locations, and several other locations[ad]. The Dutch authorities reported a stabilization of cannabis use in 2002 (ARQ).

Fig. 119: Netherlands: Cannabis use among the general population age 15-64



Source: EMCDDA, Data Library.

Fig. 120: Amsterdam (Netherlands): Annual prevalence of cannabis use (age 12 and above), 1987-2001



Source: *Licit and Illicit Drug Use in Amsterdam*, 1987-2001

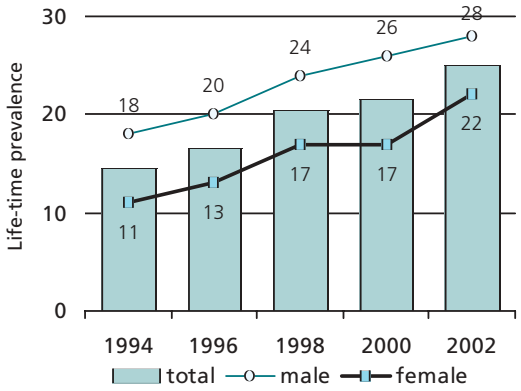
Strong increases in cannabis use over the last decade were reported from Belgium. Life-time prevalence among 15-16 year olds rose in the Flemish part of the country from less than 15% in 1994 to about 25% in 2002. Following increases in the 1990s, life-time prevalence among 15-16 year olds continues to be higher among the 'French community' than among the 'Flemish community'. In the French community it continued rising from 27.9% in 1997/98 (HBSC study) to 29% in 2002 (ARQ). Among young adults in the French speaking community, life-time prevalence of cannabis use rose by some 70% (from 17.8% in 1996/97 to 30.9% in 2000 among the population age 18-34) and was thus similar to levels reported from former West Germany (30.8%) or the Netherlands (31.5% among those 15-34), though still less than in Spain (35%), France (35.7%) or the UK (43%) in 2000. (Percentages for the latter countries refer to the age group 15-34).
Belgium introduced a new law in 2003 which partially decriminalizes cannabis use and de-facto allows for the

aa) CEDRO, Licit and Illicit Drug Use in Amsterdam, 1987-2001.
ab) The decline in the overall number of coffee shops in the Netherlands over the 1997-2002 period was even more important: from 1179 to 782. (Trimbos Instituut, National Drug Monitor2003).
ac) CEDRO, Licit and Illicit Drug Use in the Netherlands 2001, Amsterdam 2002.
ad) Trimbos Instituut, National Drug Monitor2002 and 2003.

possession of small amounts of cannabis (less than 5 grams). Smoking in public places and in the presence of minors, however, is still prohibited. For 'problematic use' or if a 'public nuisance' is created, prosecutions continue to take place. No retail outlets ('coffee shops') are allowed.

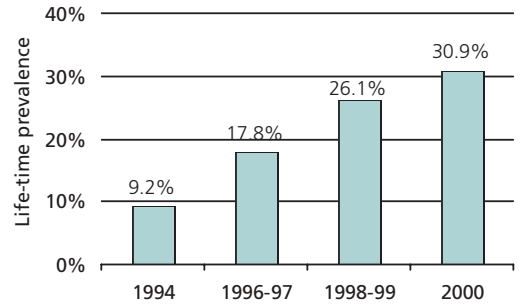
In the United Kingdom, Europe's largest cannabis market, strong increases in cannabis use in the early

Fig. 121: Belgium (Flemish community) Cannabis use among 15-16 year old



Source: Universiteit Gent, *Health Behaviour in School Aged Children, Jongeren en Gezondheit, Resultaten voor 2002*.

Fig. 122: Belgium - French Community: Life-time prevalence of cannabis use among population 18-34



Source: EMCDDA, Data Library.

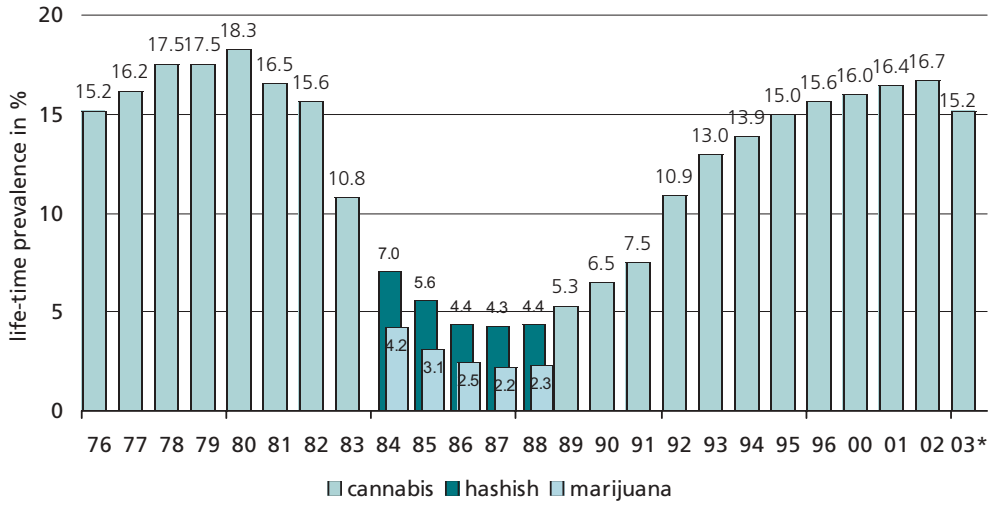
1990s were followed by a de-facto stabilization at high levels. Overall 10.9% of those age 16-59 in England & Wales admitted to having consumed cannabis in 2002/03, a similar proportion as reported from the USA. If potential error margins are taken into account, annual prevalence rates of cannabis use have remained basically stable over the last few years: 1998: 10.3%, 2001/02: 10.6% and 2002/03: 10.9%. Regularly conducted school surveys in England confirm that cannabis use is widespread, even among low age groups (annual prevalence of 13% among those age 11-15 in 2003). These surveys also indicate that cannabis use has stabilized over the last few years. Nonetheless, overall cannabis use among the general population is now twice as high as in the early 1990s and five times as high as in the early 1980s.

The UK Government re-classified cannabis from a class B to a class C drug as of January 2004, to enable enforcement authorities to focus their resources on fighting other drugs which have a stronger harm potential. It will be interesting to see whether intensified prevention activities will be able to reduce cannabis consumption, or whether the reduced levels of control will entail a further rise - from existing high levels - over the next couple of years.

In Sweden regular surveys among (male) military recruits (age 18) found a significant decline of cannabis use in the 1980s, reflecting - *inter alia* - the decisive anti-drug policies pursued by the Government. The same policies, however, could not prevent cannabis use from rising strongly among youth in the 1990s. Increases in youth unemployment and budget cuts, affecting *inter alia* subsidized leisure time activities for youth, may have contributed to this. However, in line with economic recovery, a decline in youth unemployment and a strengthening of prevention activities, the upward trend flattened over the last few years and in 2003 the survey showed - for the first time in a decade - a net decline in cannabis use (as well as for drug use in general). Despite the increase of cannabis among young males in the 1990s, Sweden still has one of the lowest levels of cannabis consumption among the general population in Europe. General population surveys conducted in 1998 and in 2000 found an annual prevalence of cannabis use of 1% among the population age 15-64, equivalent to 1/10th of the level currently reported from the UK.

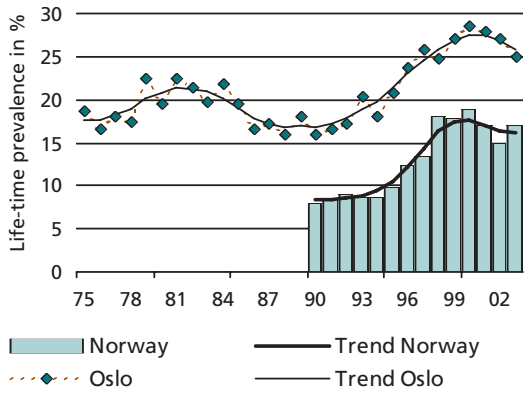
Similar to the situation in Sweden, youth surveys regularly conducted in Norway revealed a decline in cannabis use in the 1980s, an increase in the 1990s and a stabilization/decline over the 2000-2003 period. However, the decline of cannabis use in the 1980s - as compared to Sweden - was less pronounced, and so was the subsequent increase of cannabis use in the 1990s. Also, while in Sweden prevalence rates remained slightly below the levels of the late 1970s, prevalence rates in Norway (Oslo) clearly exceeded the rates observed in the late 1970s. The overall level of cannabis use among

Fig. 123: Sweden: Life-time prevalence of cannabis use among male military conscripts, age 18, 1976 - 2003



Source: Swedish Council for Information on Alcohol and other Drugs (CAN), *Drogutvecklingen i Sverige - Rapport 2003*.

Fig. 124: Norway: Cannabis use among youth (age 15-20)



Source: Norwegian Institute for Alcohol and Drug Research, Alcohol and Drugs in Norway, 2003.

the general population (age 15-64) amounted to 4.5% in 1999 and was thus significantly higher than in Sweden (1% in 2000) or Finland (2.2% in 2000) but lower than in Denmark (6.2% in 2000) and several other European countries.

General upward trend of cannabis use in Eastern Europe

Various school surveys conducted over the last decade in Eastern Europe showed that the increase in cannabis use in the 1990s (although starting from low levels) was significantly stronger than in Western Europe, both in the first and in the second half of the 1990s. In most East European countries the ESPAD school surveys[ae], conducted under the auspices of the Council of Europe, found a doubling of life-time prevalence rates among 15-16 year olds between 1995 and 1999. Thus cannabis use (as well as drug use in general) showed a trend toward convergence with drug use levels observed in Western Europe. Cannabis use in the Czech Republic, for instance, was found to have been already as high as in France or the UK (life-time prevalence of 35% among 15-16 year olds) in 1999 and cannabis use in Slovenia (25%) was already as high as in Italy. Rather high levels were also reported from Moscow (22%), the Ukraine (20%), the Slovak Republic (19%), Latvia (17%) and Croatia (16%). Relatively low levels, in contrast, were still reported from Romania (1%), the Former Yugoslav Republic of Macedonia (8%), Hungary (11%) and Bulgaria (12%).

ae) Council of Europe (Pompidou Group), *The 1999 ESPAD Report, Alcohol and Other Drug Use Among Students in 30 European Countries,* Stockholm, December 2000.

High levels of cannabis use in the Czech Republic were also confirmed in a national survey, conducted in 2002, which revealed an annual prevalence of cannabis use among the general population (age 15-64) of 10.9%, the same level as reported from England & Wales and marginally higher than in France or Spain. Cannabis use in the Czech Republic is thus far more widespread than in neighbouring Slovakia (3.6% of the general population age 15-64 in 2002), Poland (2.4% of the population age 16 and above in 1999) or in Hungary. While the Czech Republic reported a life-time prevalence rate of cannabis use of 21.1% among the general population, the corresponding rate in Hungary amounted to 5.7% in 2001.

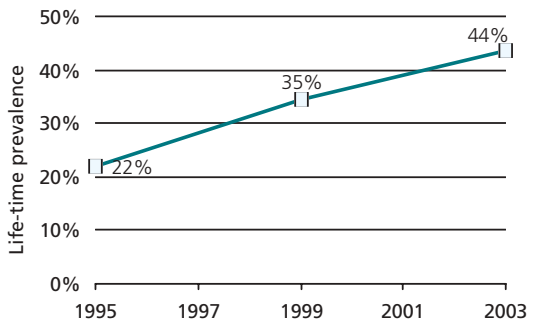
There are, however, some positive trends. While cannabis use continues to increase in rural areas (characterized by low prevalence rates), in several larger towns, where cannabis use levels already reached high levels, consumption levels stabilized or declined. (This appears to be the case in Warsaw and some cities in Hungary and in the Czech Republic).

Nonetheless, national school surveys conducted among 15-16 year old students in the Czech Republic continue to show a clear upward trend. Life-time prevalence of cannabis use among this age group rose from 22% in 1995 to 35% in 1999 and reached almost 44% in 2003 (ESPAD). This is definitely one of the highest rates and could turn out to be among the highest cannabis prevalence rates among students across Europe in 2003.

Increases in cannabis use have been also reported from other countries in the region, notably from countries which, so far, have had low prevalence rates. Thus, the ESPAD studies showed a rising trend of cannabis use in Hungary: life-time prevalence of 5% among 15-16 year olds in 1995 (or 7% among secondary school students in Budapest), rising to 12% in 1999 among 15-16 year olds (or 25% among secondary school students in Budapest), and increasing to 28.1% among 16-17 year old Hungarian students in 2002. Though there are differences in the age groups analysed, it can be assumed that overall cannabis use continued increasing among Hungarian students over the 1999-2002 period. Similarly, a school survey conducted in 2001-2002 in the capital of Romania, Bucharest, already found a prevalence rate of cannabis use of 34% among 14-17 year old students (ARQ 2002) while the 1999 ESPAD study, conducted across Romania, found a lifetime prevalence rate of cannabis use among 15-16 year old students of just 1%. Even taking into account that prevalence rates in capital cities are, in general, larger than in the country as a whole and that the age groups investigated were not identical, reported differences were so large that one can take it for granted that cannabis use increased significantly among high-school students in Romania over the 1999-2002 period.

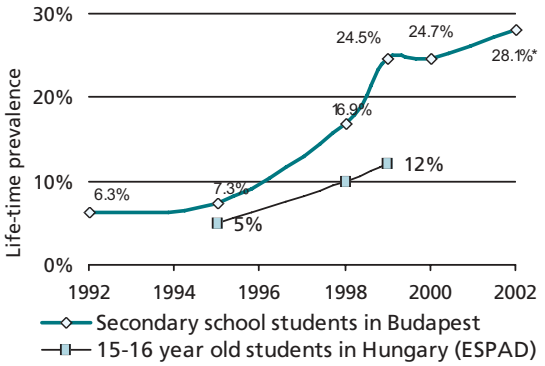
Increases in cannabis use also took place in Bulgaria. The 1999 ESPAD study found a life-time prevalence rate of 12% among 15-16 year olds. A study conducted in 2001 in Sofia found the life-time prevalence rate of cannabis to have increased to 26.9%[af].

Fig. 125: Czech Republic, Cannabis use among 15-16 year olds



Source: Psychiatrické Centrum Praha, ESPAD 03, The European School Survey on Alcohol and Other Drugs - The Czech Republic 2003

Fig. 126: Hungary: Cannabis use among high-school students, 1992-2002



* data for 16-17 year old students in Hungary in 2002.

Sources: Council of Europe, *The 1995 and 1999 ESPAD Reports*, *National Report Hungary 2001* and UNODC, Annual Reports Questionnaire 2002.

af) EMCDD, *The State of the Drugs Problem in the Acceding and Candidate Countries to the European Union*, Lisbon 2003.

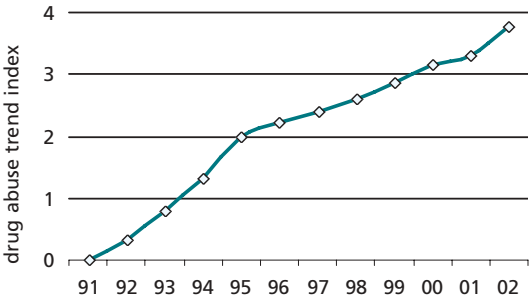
AFRICA

Cannabis use continues to increase …

Cannabis is the main drug of concern in Africa. It is easily available and is the primary drug associated with treatment demand in Africa. In most African countries, for which information is available, cannabis also accounts for the bulk of arrests for drug trafficking and use.

Cannabis consumption in Africa has been increasing steadily over the last decade. This is reflected in UNODC's Drug Abuse Trend Index. If it were not for limited levels of reporting UNODC's Drug Abuse Trend Index would show even stronger increases for Africa. Throughout the 1992-2002 period, 50% to 100% of countries reporting saw rising levels of cannabis use. Out of 19 countries reporting in 2002, 16 countries (84%) reported rising levels of cannabis use. Large increases in cannabis use in 2002 were reported by Morocco in North Africa as well as by Malawi and Zimbabwe in Southern Africa, by Tanzania and Somalia in Eastern Africa, and by Côte d'Ivoire in Western Africa.

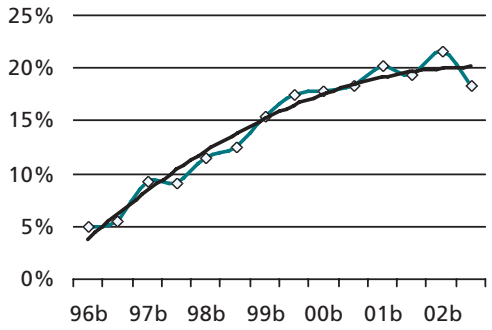
Fig. 127: Cannabis consumption trend in Africa based on national experts' perceptions, 1991 - 2002



Source: UNODC, Annual Reports Questionnaire Data.

The only comprehensive time series data available are for South Africa. According to data collected by the South African Community Epidemiology Network on Drug Use (SACENDU) the proportion of people in treatment for cannabis abuse in South Africa rose from around 5% in 1996 to around 20% in 2002. Above average proportions have been reported from Gauteng (Johannesburg and Pretoria: 23% in 2002) and from Durban (24%). The number of people treated for cannabis abuse rose more than 3-fold in Cape Town, more than 6-fold in Durban over the 1996-2002 period, and - over the 1998-2002 period - by a factor of 2.4 in Gauteng. There are more people in treatment for cannabis abuse in South Africa (and most other African countries) than for any other substance, except alcohol. The next most frequently encountered substance in South Africa is Mandrax (a methaqualone preparation) in combination with cannabis. Among adolescents (age 20 or less) cannabis is the main substance leading to treatment demand, ahead of alcohol (on average 54% in first half of 2003.) For the first half of 2003 some declines in the number of people treated for cannabis abuse were observed in Cape Town, Durban and Gauteng, though increases continued in Mpumalanga, located close to the border with Mozambique.

Fig. 128: South Africa*: Proportion of people in treatment for cannabis abuse, 1996-2003



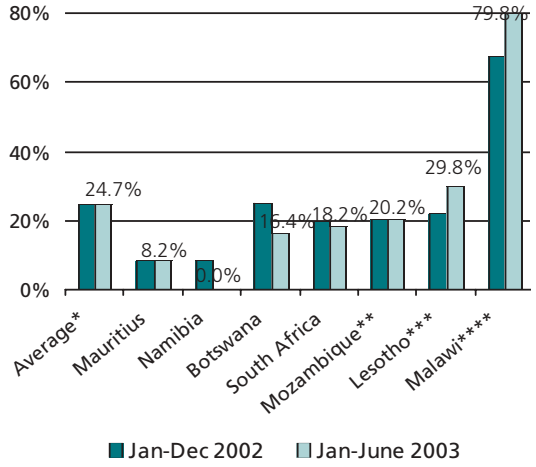
* Average from Cape Town, Gauteng (Johannesburg/ Pretoria), Durban and Mpumalanga.

Source: SACENDU, *Research Brief, Vol. 6*. 2003.

Increases in cannabis use over the last decade were also reported for the countries forming part of the Southern African Development Community (SADC). However, in the first half of 2003 the overall proportion of people in treatment for cannabis abuse appears to have remained rather stable as compared to 2002. Increases reported from Malawi, a major cannabis producing country in the region (from 67% to 80% of all treatment demand) were offset by declines reported from South Africa, Namibia and Botswana. For other countries in the region the levels of people treated for cannabis abuse remained basically unchanged. The highest proportions of people in treatment for cannabis abuse are found in Malawi (80%), followed by Lesotho. Overall around 25% of treatment is cannabis related (unweighted average of country results).

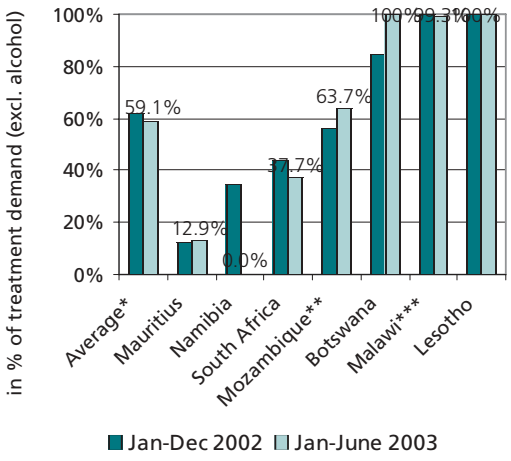
Excluding alcohol, cannabis accounts for some 60% of treatment demand. In Lesotho, Malawi and Botswana

Fig. 129: Proportion of people in treatment for cannabis abuse in countries of southern Africa, 2002 and 2003



* unweighted average ** 2002 data for Mozambique refer to Oct.-Dec. 2002 period; '2002 data' for Lesotho refer to July 2001-Dec. 2002 period; 2002 data for Malawi refer to Jul-Dec. 2002 period.

Fig. 130: Proportion of people in treatment for cannabis abuse in countries of southern Africa, 2002 and 2003



* unweighted average ** 2002 data for Mozambique refer to Oct.-Dec. 2002 period; *** 2002 data for Malawi refer to Jul-Dec. 2002 period.

Source: *Southern African Development Community Epidemiology on Drug Use* (SENDU), January - June 2003.

practically all drug treatment was cannabis-related in 2002 and 2003. In Zambia the proportion amounted to 70% (2002) and in South Africa to around 40% (2002/03). In Mauritius, in contrast, which suffers from significant levels of heroin abuse, cannabis only accounts for some 13% of drug treatment. The overall largest number of people seeking treatment for cannabis abuse are found in South Africa.

Similarly, practically all of the countries forming part of the East Africa Drug Information System (EADIS) reported rising levels of cannabis use[ag] and most of the countries also reported high proportions of people in treatment for cannabis abuse. High proportions of people in treatment for cannabis abuse were reported by countries located in the Indian Ocean such as Madagascar (88% in 2001)[ah] or the Seychelles where practically all drug treatment was cannabis related (though the authorities of the Seychelles reported that in 2002 - for the first time - some of the cannabis users had also consumed ecstasy, benzodiazepines and cocaine).

High proportions of people in treatment for cannabis abuse have been also encountered in most West African countries. In Nigeria, for instance, 92% of all drug treatment demand (excl. alcohol) was linked to cannabis abuse in 2002, in Ghana 86% in 2002 and in Togo 77% in 2001 (ARQ).

The overall numbers of people receiving treatment in Africa for substance abuse are, however, small (a few hundred people in the larger countries and a few dozen in the smaller countries; only in South Africa the number of people receiving treatment for substance abuse (incl. alcohol) amounted to some 12,000 persons in 2002). This is not a consequence of low levels of treatment demand in Africa but of a limited availability of treatment facilities. Many people in Africa receive treatment outside the clinical system, or their cases are dealt with in a psychiatric ward which is not recorded as treatment.

ag) Djibouti, Ethiopia, Kenya, Madagascar, Mauritius, Seychelles, Uganda, United Republic of Tanzania (UNODC, GAP - East Africa Drug Information System, EADIS Second Annual Meeting, Nov. 2002.)

ah) UNODC, GAP, op. cit.

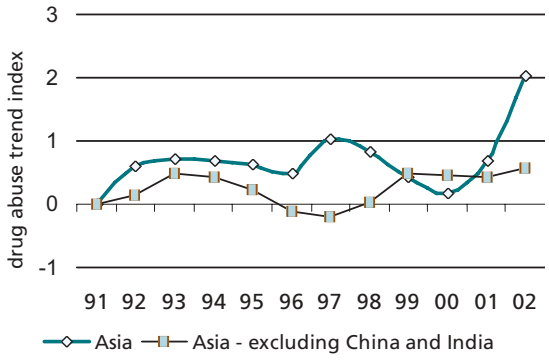
ASIA

Increases in cannabis use less pronounced than in other regions …

UNODC's Drug Abuse Trend Index found some increase of cannabis use in Asia over the last decade. The increase was, however, less pronounced than in Africa, Europe or the Americas. There was some increase over the 2000-2002 period.

This was mainly the result of large increases reported by the two most populous countries, China and India. In China prevalence of cannabis use still ranks only third (after opiates and ATS). In India, in contrast, cannabis is the most widely used illegal substance. A national household survey conducted in India in 2001 found a monthly prevalence of cannabis use of 3% among males (age 12-60)[ai], significantly more than for opiates (0.7%) or for any other substance and equivalent to more than 80% of all illegal drug use (3.6%). India has thus apparently a lower cannabis prevalence rate than the USA (monthly prevalence of 8.9% of the male US population in 2001) or several West European countries, but a higher total number of male cannabis users than any other country in the world (8.8 million male cannabis users in India versus 7.6 million male cannabis users in the USA in 2001). In terms of treatment demand (incl. alcohol), 11.6% was cannabis related in India (2000), less than alcohol (43.9%) but more than heroin (11.1%), opium (8.6%) or any other drug. The highest proportions of cannabis related treatment were reported from the states of Uttar Pradesh (20%) and Bihar (19%) in northern India, bordering Nepal (a significant cannabis producer) and from the state of Kerala (16%) in southern India.

Fig. 131: Cannabis consumption trend in Asia based on national experts' perceptions



Source: UNODC, Annual Reports Questionnaire Data.

Excluding data for China and India, which have a strong weight for UNODC's Drug Abuse Trend Index, data for the rest of Asia show a basically stable trend over the 1999-2002 period.

… mainly due to falling levels of cannabis use in South-East Asia

While increases were reported from Pakistan and Iran, reflecting Afghanistan's growing hashish production, South-East Asia (with the exception of China) was characterized by declining levels of cannabis consumption. Falling levels of cannabis use in 2002 were reported by Indonesia (just 1.4% of new drug users identified by the authorities in Indonesia in 2002 were cannabis users), the Philippines and Myanmar. Cannabis consumption levels remained stable in Brunei Darussalam. Bangladesh and Nepal reported stable levels of cannabis consumption. Stable levels of cannabis use were also reported from the Republic of Korea. Authorities in Japan, in contrast, reported some increase. Cannabis use in Japan, however, continues to remain limited (annual prevalence of 0.1% of the population age 15 and above in 2002; life-time prevalence: 1%).

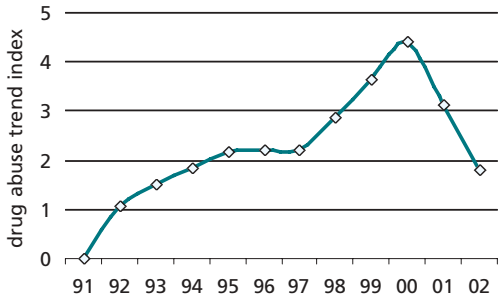
OCEANIA

Characterized by falling levels of cannabis use in recent years

UNODC's Drug Abuse Trend Index showed strong increases in the Oceania region over the 1991-2000 period. Over the 2000-2002 period, however, a similarly sharp decline was reported.

ai) UNDCP, *National Survey on Extent, Pattern & Trends of Drug Abuse in India, National Report 2002.*

Fig. 132: Cannabis consumption trend in Oceania based on national experts' perceptions

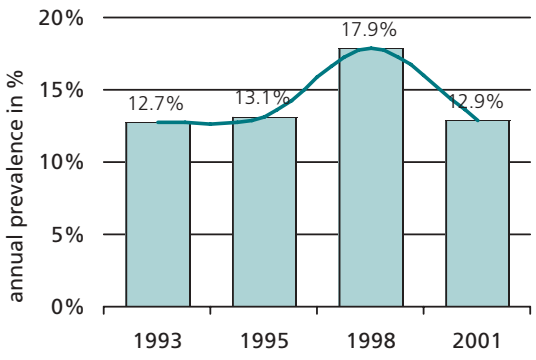


Source: UNODC, Annual Reports Questionnaire Data.

The index for the Oceania region reflects primarily reported cannabis consumption in Australia. Annual prevalence of cannabis use, as reflected in household surveys, rose slightly between 1993 and 1995 and significantly between 1995 and 1998, but fell between 1998 and 2001 by 28% to 12.9% among those age 14 and above. The rate is thus still marginally higher than in the USA (11% of those age 12 and above in 2002) or the UK (10.9% of those age 16-59 in 2002/03), but the differences are far less significant than they used to be in the late 1990s. Studies conducted among school students, age 15-16, revealed a life-time prevalence rate of cannabis use of 20.6% in 2001 (ARQ) less than the results of previous UN surveys. Similarly, drug tests among detainees showed declines in cannabis use over the 1999-2001 period. For 2002, however, there were no indications that the downward trend continued.

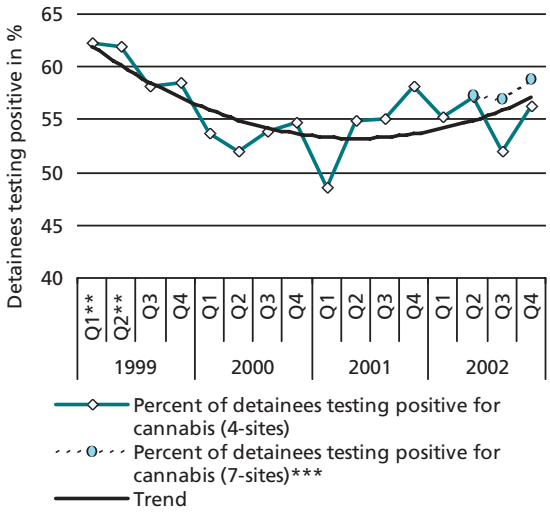
In New Zealand the annual prevalence in cannabis use increased slightly over the 1990-1998 period and remained basically stable over the 1998-2001 period. With an annual prevalence rate of 20% among those age 15-45 in 2001, the prevalence rate in New Zealand was largely the same as the prevalence of cannabis use in Australia for this age group.

Fig. 133: Australia: Cannabis use in % of population age 14 and above



Source: AIHW, *Statistics on Illicit Drug Use in Australia 2002*

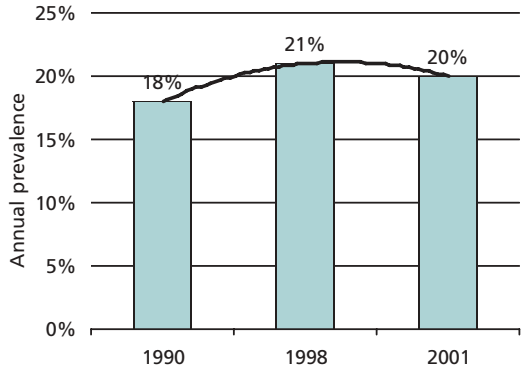
Fig. 134: Australia: Percent testing positive for cannabis among male police detainees*, 1999-2002



* unweighted average of results from Bankstown, Parramatta,South Port and East Perth.
** unweighted average of results from South-Port and East Perth only.
*** 4 sites mentioned above plus Adelaide, Brisbane and Elizabeth

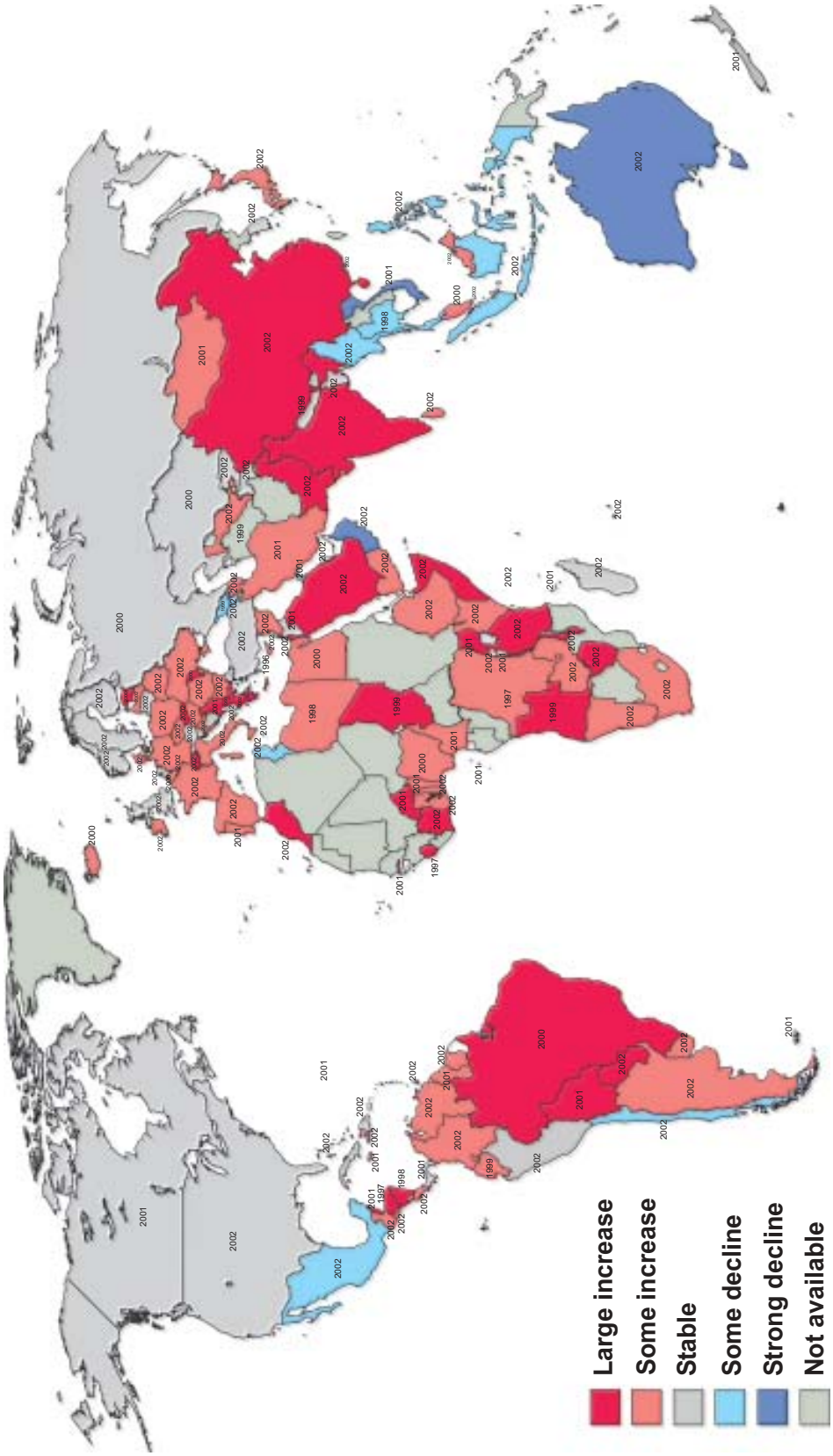
Source: Australian Institute of Criminology, Drug Use Monitoring in Australia (DUMA).

Fig.135: New Zealand: Cannabis use among 15-45 year olds



Sources: APHRU, *Drugs in New Zealand, Drug Use in New Zealand Comparison Surveys 1990-1998* and APHRU, *Drug Use in New Zealand: National Surveys Comparison 1998 & 2001*, May 2002.

Map 19: Changes in use of cannabis, 2002 (or latest year available)



Source: UNODC Annual Reports Questionnaire Data and national reports.

2.4. Amphetamine-type stimulants

2.4.1. Production

ATS production: larger than heroin but lower than cocaine in terms of weight

Assessing the extent of the manufacture of synthetic drugs such as amphetamine-type stimulants, is less straightforward than estimating the production of plant based drugs. For the plant based drugs, cultivation area can be estimated through ground surveys and/or the analysis of satellite photos. For production figures, the results of the areas under cultivation are then multiplied with typical yields per hectare (established through interviews with farmers and/or by measuring the yields on test fields). In the case of synthetic drugs indirect methods must be used.

Table 12: Production estimates of amphetamine-type stimulants

	Estimated annual production (metric tons)		
Based on:	**Amphetamine and methamphetamine**	**Ecstasy**	**Total**
Consumption*	516	100 - 125	616 - 641
Drug seizures**	340 - 490	50 -75	390 - 565
Precursor seizures***	290 - 410	130 - 200	420 - 610
Mean and range	**410** (290 - 516)	**113** (50 - 200) [1.4 billion tablets]	**523** (390 - 641)

* Number of users and quantities consumed

Amphetamine and methamphetamine: In general, consumption volumes are not easy to estimate. Doses vary widely, and the frequency of dosing is not clear. Based on an average dose of 30mg every day (the content of an average methamphetamine tablet; and twice the defined daily dose of amphetamines), and an estimated number of 34 million users worldwide (UNODC, *Global Illicit Drug Trends 2003*), there would be an annual requirement for about 375 tons of drug. The estimate is somewhat higher if the wrap size for amphetamine is used as a measure of dose. A "wrap" in this context is understood to be a quantity of drug packaged for distribution at street level: from data available from the UK, the majority of wraps (80%) contain not more than 1g of powder with an average purity of about 13% (i.e. a wrap contains about 130 mg pure amphetamine). Other estimated average doses are similar (INCB). Again based on one dose per day, the annual requirement is about 1600 tons of drug. Weighted for the estimated number of users of amphetamine and the number of methamphetamine users worldwide, the requirement for amphetamines is estimated at some 516 tons (184 tons of amphetamine, and 332 tons of methamphetamine) [users in Europe (3.3 million) vs. users in North America and Asia (2.9 million + 22.5 million)]. Breakdown of overall mean (amphetamine and methamphetamine) of 410 tons used on a pro rata basis.

Ecstasy: Taking into account occasional, moderate and heavy use, studies show that, on average, the eight million ecstasy users consume about three tablets per week. This amounts to an annual requirement for up to 1250 million tablets, or 100 tons to 125 tons of drug (each tablet contains 80mg to 100mg).

** Drug seizures

Amphetamine and methamphetamine: Law enforcement officials estimate that seizures generally account for some 10% of the drugs available. Based on that estimate, and average global seizures over the last three years, where data are available, about 34 tons, the clandestine market would amount to 340 tons. Other more specific estimates have been made of interdiction successes, suggesting that only about 7% of the drug is actually seized. Using that information, estimated production amounts to about 490 tons.

Ecstasy: Similarly, based on average global seizures over the last three years of about 5 tons, the total production of ecstasy would amount to 50 tons, rising to about 75 tons using the lower estimate for the interdiction rate.

*** Precursor seizures

Using a similar approach to that for drug seizures, estimates of the market for amphetamine and methamphetamine based on precursor seizures range from 290 tons to 410 tons; and for ecstasy from 130 tons to 200 tons.

Estimates produced by UNODC for its Ecstasy and Amphetamines Global Survey 2003 were based on seizures of the drugs, the precursors required for their manufacture and estimates of consumer demand. These estimates put annual production of ATS at around 520 tons (range: 390-641 tons) which is larger , in terms of weight, than the global manufacture of heroin but smaller than the global manufacture of cocaine.

Production is dominated by methamphetamine, followed by ecstasy and amphetamine

Acknowledging for the complexity inherent in the precise breakdown of ATS production by substance, all available indicators suggest that methamphetamine accounts for the bulk of global ATS production, followed by ecstasy and amphetamine. 'Amphetamines' - i.e. methamphetamine and amphetamine together - account for some 80%, and ecstasy for some 20% of global ATS production. At least two thirds of the 'amphetamines' manufacture is accounted for by methamphetamine. (This ratio could go as high as 80% based on a breakdown of amphetamines seizures over the 2001-2002 period).

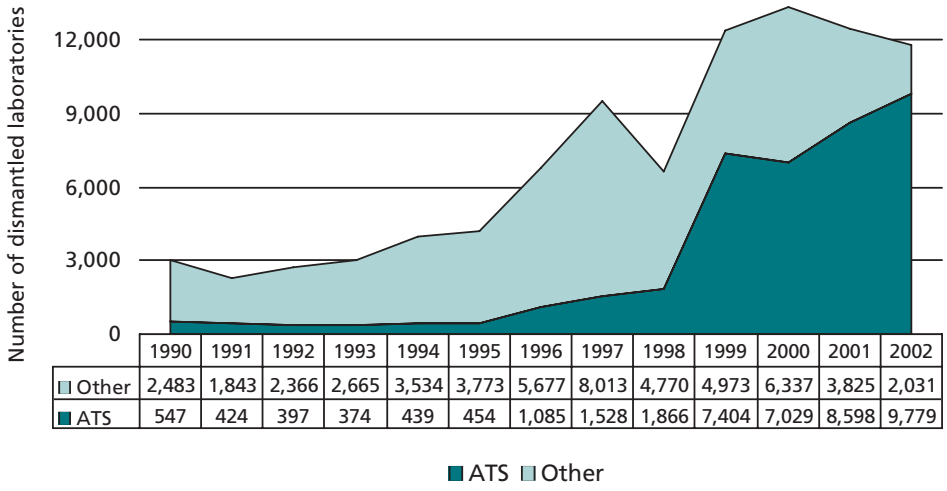
Global ATS production increased over the last decade

The overwhelming portion of reported seizures of ATS concerns substances produced in clandestine laboratories. One indicator for the trends of illicit manufacture is the number of clandestine laboratories detected and seized. Based on ARQ data, about 11,900 clandestine laboratories of all drug types were dismantled in 2002, of these more than 80% (some 9,800) produced ATS. This proportion was less than 20% in the early 1990s. Although the size of clandestine laboratories can vary significantly, the increasing number of dismantled ATS laboratories over the last decade reflected a rise in global ATS production. However, there are also indications that the growth of seizures of clandestine laboratories may have prompted global ATS production to stabilize in 2002. Seizure and consumption data for some countries where such laboratories were closed down, point in this direction.

Most clandestine laboratories detected produce methamphetamine

Most dismantled ATS laboratories produced methamphetamine (about 95% in 2001 and 2002). Laboratories producing a combination of ATS (mostly methamphetamine, methcathinone, amphetamine and ecstasy) came next (3%), followed by those producing only amphetamine (1% in 2001) and only 'ecstasy' (close to 1% in 2002). Only 0.2% of the dismantled laboratories produced other synthetic stimulants. Detections of ATS laboratories indicated a shift from amphetamine to methamphetamine production over the last two decades. In 1985, 26% of seized ATS laboratories produced amphetamine, in 1990 17% and in 2002 only 1%. Meanwhile the proportion of methamphetamine laboratories increased from 69% in 1985, to 88% in 1990 and 95% in 2002. (It should be noted, however, that these trends are heavily weighted toward the reported data provided by the USA, because the large majority of all detections of ATS laboratories are in the USA.)

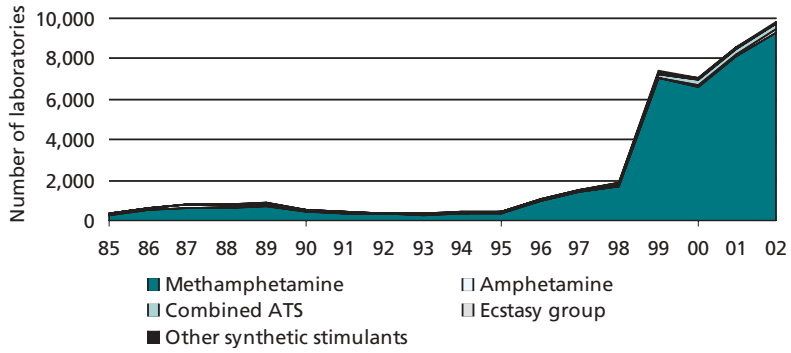
Fig. 136: Detections of clandestine laboratories at the global level, 1990-2002



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Other	2,483	1,843	2,366	2,665	3,534	3,773	5,677	8,013	4,770	4,973	6,337	3,825	2,031
ATS	547	424	397	374	439	454	1,085	1,528	1,866	7,404	7,029	8,598	9,779

Source: UNODC, Annual Reports Questionnaire Data.

Fig. 137: Detected ATS laboratories, 1985-2002



Source: UNODC, Annual Reports Questionnaire Data.

2.4.1.1. Methamphetamine

A record number of methamphetamine laboratories and methamphetamine precursor chemicals were seized in 2002

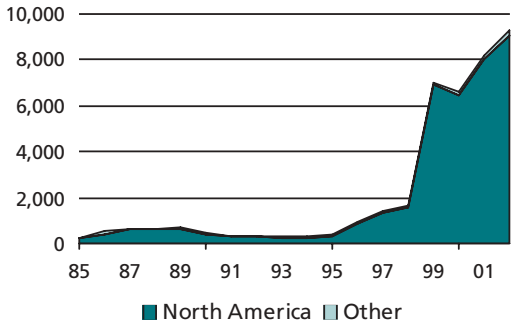
More than 9,300 clandestine laboratories producing methamphetamine were dismantled in 2002 (up 14% from a year earlier). In addition, 160 tons of pseudoephedrine and ephedrine, the 'raw materials' for the manufacture of methamphetamine, were seized at the global level in 2002 (up from 31 tons in 2001). This was potentially enough to produce some 110 tons of methamphetamine in 2002. Even discounting the possibility of multiple orders in anticipation of some shipments being intercepted, seizures in 2002 of methamphetamine precursors were much more important in reducing global supply than seizures of methamphetamine as such (15 tons). Most ephedrine and pseudo-ephedrine continues to originate in the East & South-East Asia region and in South Asia.

Most methamphetamine laboratories are dismantled in North America

The largest number of clandestine methamphetamine laboratories were dismantled in North America over the last two decades. The USA undertook 97% of all reported methamphetamine laboratories detections in 2002. North America also accounted for 95% of all methamphetamine precursor seizures in 2002 (up from 72% in 2001). These seizures increasingly involved pseudo-ephedrine (96% of all methamphetamine precursor seizures made in North America in 2002), which was often smuggled into the USA via Canada. (Improved legislation introduced in Canada in 2003 should make such diversion of precursor chemicals more difficult in the future). The US authorities reported the detection of 9,024 methamphetamine laboratories in 2002 (up from 7,990 in 2001). Fourteen clandestine methamphetamine laboratories were dismantled in Canada in 2002 (13 in 2001) and 10 in Mexico (19 in 2001). The efforts to dismantle methamphetamine laboratories in North America in recent years seem to have had a positive impact despite the fact that most of them are small-scale production units. The decline in availability is reflected in the estimated 30% decline in the annual prevalence of methamphetamine use among 12th graders between 1999 and 2003, a welcome sign after having increased throughout the 1990s.

The largest number of ATS laboratories dismantled in East and South-East Asia was reported from China (13), Myanmar (4) and the Philippines (4) in 2002. The number of dismantled laboratories in East and South-East Asia fell in 2002 as compared to a year earlier (44 in China, 10 in Thailand, 5 in Myanmar, 3 in the Philippines and 1 in the Republic of Korea in 2001). Though the dismantled laboratories in this region tend to be significantly larger than those (usually) seized in the USA, detections are not that numerous. This leaves large portions of methamphetamine available for traf-

Fig. 138: Dismantling of methamphetamine laboratories, 1985-2002

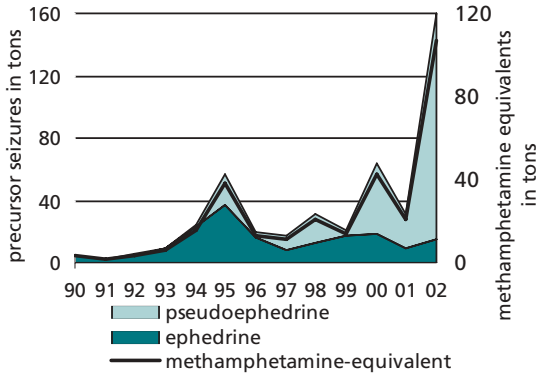


Source: UNODC, Annual Reports Questionnaire Data / DELTA.

ficking across the region. Thus, over the 2001-2002 period, 87% of global methamphetamine seizures took place in this region. Moreover, China, Myanmar and the Philippines repeatedly reported seizures of ephedrine through 2002. India also reported some seizures of ephedrine.

The largest number of clandestine methamphetamine laboratories dismantled in Europe was in the Czech Republic (104 in 2002, up from 28 in 2001). Germany dismantled two clandestine methamphetamine laboratories. The only detection of a clandestine methamphetamine laboratory operating in Africa took place the same year in South Africa.

Fig. 139: Seizures of methamphetamine-precursors



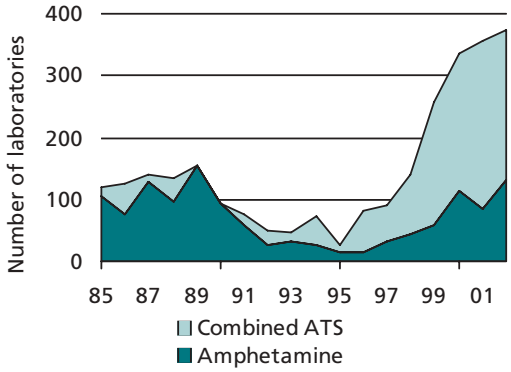
Source: INCB, *2003 Precursors*, New York 2004.

Belgium, Bulgaria, the Baltic countries, the UK and France) reported the dismantling of amphetamine laboratories in 2002. More than 80% of all P2P seizures (1-phenyl-2-propanone, also known as BMK), the main precursor for the production of amphetamine, were made in Europe in 2002.

With a shift of production towards Eastern Europe

A shift of production from Western Europe towards Eastern Europe has been noticed since the mid 1990s. The number of dismantled amphetamine laboratories continued to rise in Eastern Europe in 2002, while falling in Western Europe. Nonetheless, the Netherlands remained the most frequently mentioned source country for amphetamine in 2002 (cited by other countries), followed by Poland and Belgium.

Fig. 140: Detected amphetamine laboratories, 1985-2002



Source: INCB, *2003 Precursors*, New York 2004.

2.4.1.2. Amphetamine

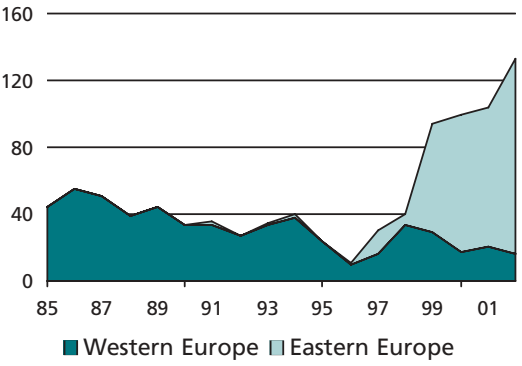
Ongoing rise of detection of clandestine laboratories in 2002

The number of detected amphetamine laboratories has increased again in recent years after falling in the 1990s. A number of countries do not report the specific kind of ATS produced by detected laboratories ('combined ATS'). It can be assumed that a number of these laboratories produce amphetamine. The number of detections of amphetamine and 'combined ATS' laboratories rose by 5% in 2002. This was more than 6 times higher than a decade earlier.

Concentration of amphetamine production in Europe

The Russian Federation and other European countries (the Netherlands and Poland, followed by Germany,

Fig. 141: Detection of amphetamine* laboratories in Europe



* including 'combined ATS'

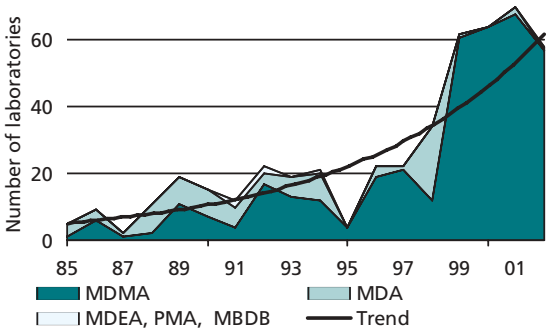
Source: INCB, *2003 Precursors*, New York 2004.

2.4.1.3. Ecstasy

Number of dismantled clandestine ecstasy laboratories rises almost 3-fold over 1992-2002 period

The number of dismantled ecstasy laboratories declined slightly in 2002 but was still almost 3 times higher than a decade earlier. While in the late 1980s and early 1990s laboratories producing MDA, and to a lesser extent MDEA and other ecstasy-type substances, still played a role, almost all laboratories seized in 2000 and subsequent years produced MDMA (ecstasy).

Fig. 142: Detection of laboratoriesproducting substances of the ecstasy group, 1985-2002



Source: UNODC, Annual Reports Questionnaire Data.

Most ecstasy laboratories are still dismantled in Europe, but production is rising in Asia

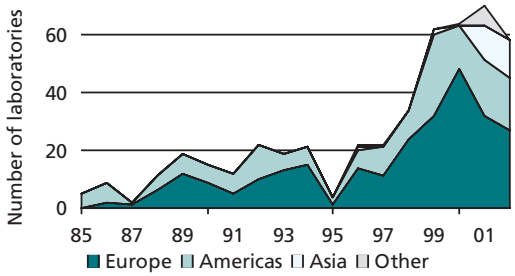
Over the 2000-2002 period 56% of all ecstasy laboratories were dismantled in Europe (of which 98% in Western Europe), 27% in North America, 13% in Asia (mainly East and South-East Asia) and 4% in other parts of the world (notably in the Oceania region and in southern Africa). In 2002 most ecstasy laboratories were dismantled in the Netherlands (18), followed by China (11), the USA (9), Canada (8), Belgium (4), the UK (3), and Indonesia (2). The Netherlands also continues to be the country most frequently identified by other countries as the main source country for the ecstasy found on their markets.

The most striking trend in recent years has been the increase of ecstasy production in East and South-East Asia. While the number of dismantled ecstasy laboratories declined in Europe, and remained more or less stable in North America, it increased strongly in Asia.

Ecstasy precursor seizures rose in 2002

Global ecstasy precursor seizures (expressed in MDMA equivalents) increased by 17% in 2002 and were 76

Fig. 143: Detection of laboratories producing substances of the ecstasy group, regional breakdown, 1985-2002

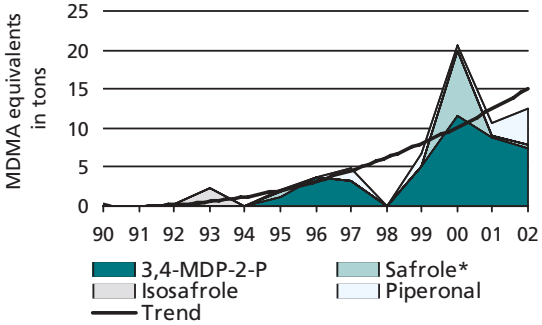


Source: UNODC, Annual Reports Questionnaire Data.

times higher than a decade earlier, another indicator that global production of ecstasy increased over the last decade. Seizures of ecstasy precursor chemicals (which reduced potential MDMA production by some 12 tons in 2002) were higher than seizures of ecstasy as such (5 tons in 2002).

The main ecstasy precursor is still 3,4-MDP-2-P (also known as PMK). It accounts for 60% of all ecstasy precursor seizures. Eighty seven percent of all PMK was seized in Europe in 2002. In 2001 and 2002 Dutch authorities reported the largest seizures of PMK, while in 2000 Belgium reported the largest seizures. A strong increase in 2002 was reported for seizures of piperonal, a 'pre-precursor' for the manufacture of ecstasy (mainly due to large seizures reported by Mexico). Seizures of safrole, another pre-precursor for ecstasy production also rose in 2002, though levels remained under those of 2000 (when record seizures were reported by the Netherlands). Ninety nine percent of all safrole seizures in 2002 were made in Europe. Countries in South-East Asia seem to be the main source for PMK and safrole.

Fig. 144: Seizures of 'ecstasy' precursurs in MDMA-equivalents



* including safrole in the form of sassafras oil

Source: INCB, *2003 Precursors*, New York 2004.

2.4.2. Trafficking

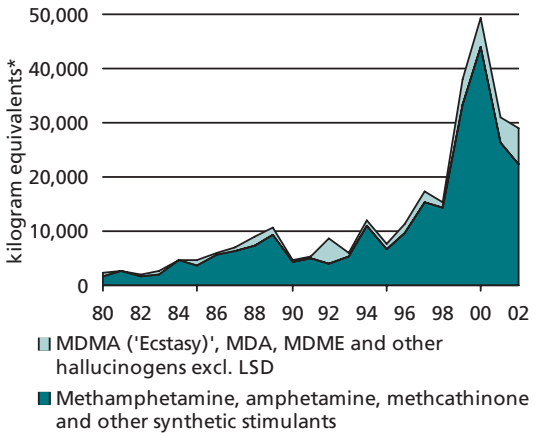
2.4.2.1. Overview

Following massive increases in the 1990s, ATS seizures declined in 2002…

Amphetamine-type stimulants (ATS) seizures showed a marked upward trend in the 1990s, particularly in the second half of the decade, and peaked in the year 2000. This was consistent with a general trend of increasing ATS production, trafficking and consumption. From 2001 to 2002, however, ATS seizures declined by 7%, mainly due to a fall of methamphetamine seizures in China.

Over the 1992-2002 period, China reported the highest ATS seizures, followed by Thailand, the USA, the UK and the Netherlands. In 2001 and 2002, the highest ATS seizures worldwide were reported from Thailand, followed by China.

Fig. 145: Seizures of amphetamine-type stimulants 1980-2002



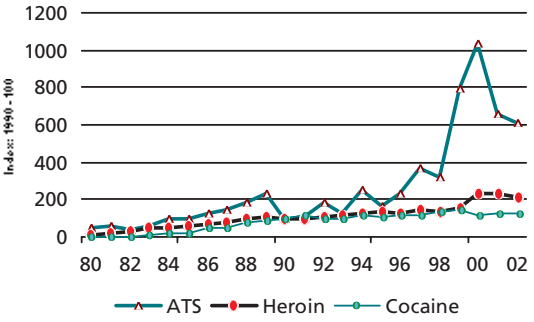
* Seizures reported in kilograms and in units; a unit ('pill') of ecstasy was assumed to contain on average 100 mg of MDMA; a 'unit' of amphetamine / methamphetamine was assumed to contain 30 mg of mphetamine / methamphetamine.

Source: UNODC, Annual Reports Questionnaire Data.

Over the last decade, ATS seizures increased much more rapidly than those of heroin or cocaine, despite the fall in 2001 and 2002 described above. Using 1990 as a base line, ATS seizures rose more than ten-fold till the year 2000. Though they declined in 2001 and 2002, they were still higher than in 1998 and some six times larger than in 1990.

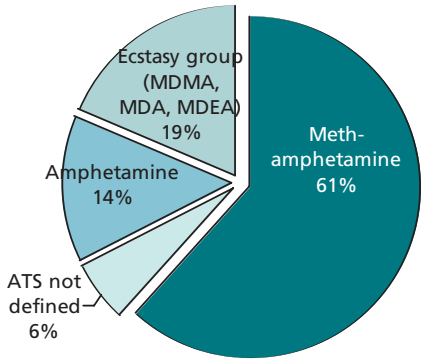
In 2001/2002, more than 60% of global ATS seizures were of methamphetamine and close to 20% were of ecstasy. The majority of the remainder was amphetamine seizures (14%). For 6% of all ATS seizures no precise identification, beyond the general category of ATS, was possible.

Fig. 146: Changes in ATS, heroin and cocaine seizures (Index: 1990 = 100)



Source: UNODC, Annual Reports Questionnaire Data.

Fig. 147: Breakdown of ATS seizures in 2001 and 2002 (N = 30 tons p.a.)



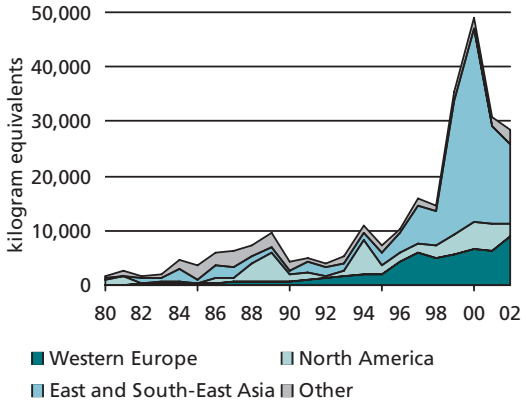
Source: UNODC, Annual Reports Questionnaire Data.

… with concentrations in East/South-East Asia, followed by Western Europe and North America

In recent years, ATS seizures have been concentrated in East and South-East Asia, followed, at some distance, by Western Europe and North America. East and South-East Asia accounted for 55% of all ATS seizures in 2001/2002, up from 39% in 1991/1992. Most of this increase took place in the late 1990s. Europe accounted for 25% and North America for 12% of total ATS seizures in 2001/2002. A mere 8% of global ATS seizures were recorded outside these three areas.

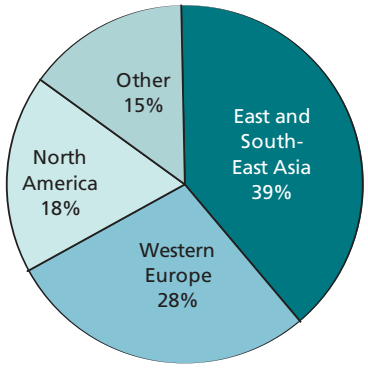
In 2002 ATS seizures continued to decline in East and South-East Asia. They also declined strongly in North America, probably a consequence of the large-scale dismantling of ATS laboratories in the USA that reduced domestic supply and thus trafficking within North America. Significant increases, however, were reported from Western Europe.

Fig. 148: Geographical distribution of ATS seizures 1980-2002



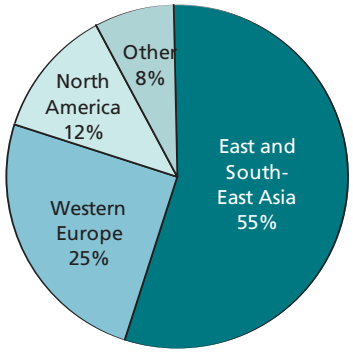
Source: UNDODC, Annual Reports Questionnaire Data.

Fig. 149: ATS seizures in 1991/92 (N = 4 tons)



Source: UNDODC, Annual Reports Questionnaire Data.

Fig. 150: ATS seizures in 2001/02 (N = 30 tons)



Source: UNDODC, Annual Reports Questionnaire Data.

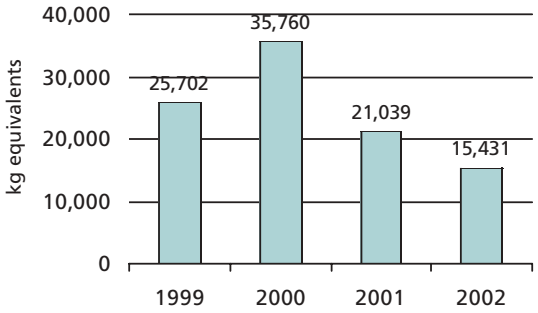
2.4.2.2. Methamphetamine

Methamphetamine seizures peaked in 2000 following strong increases in the 1990s. Since 2000 they have followed a downward trend, falling by 27% in 2002. The trafficking of methamphetamine continues to be concentrated in two sub-regions: East & South-East Asia (87% of all seizures in 2001/2002) and North America (13%). In both sub-regions, however, seizures declined in 2002. The North American decline is likely to have been a result of an intensified dismantling of laboratories in the USA. National student surveys confirm a reduction of methamphetamine availability in 2002. The decline in East and South-East Asia was mainly a consequence of ongoing declines of methamphetamine seizures in China following record ones in 1999 and 2000. Methamphetamine seizures also declined in the Philippines and Myanmar in 2002. Forty countries reported seizures of methamphetamine in 2002. The world's largest ones were reported from Thailand (56% of global seizures), China (21%), the USA (7%), Myanmar (6%), Japan (3%) and Mexico (3%). Thailand reported a small increase in seizures in 2002. This seems to have been due to intensified enforcement efforts rather than an increase in trafficking activities. In 2003 Thailand stepped up its anti-trafficking efforts leading to forceful crackdown on the methamphetamine market.

Eighteen countries were identified as sources of methamphetamine in 2002. The main source countries

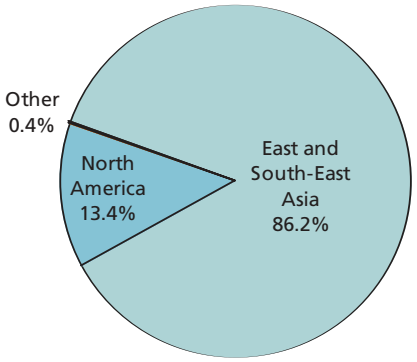
were Myanmar (for Thailand), China and the Philippines. Some of the methamphetamine exported from the Philippines originated, however, in China. Chinese authorities reported that 18% of the methamphetamine on their market actually originated in Myanmar. The Democratic People's Republic of Korea (North Korea) has been repeatedly identified as a source country (or at least as a major transit country) by the Japanese authorities. The main source countries for North America are the USA and Mexico and, to a lesser extent, the Philippines. The main sources for methamphetamine found in Australia were identified as China and, to a lesser extent, Thailand and the Philippines.

Fig. 151: Global methamphetamine seizures



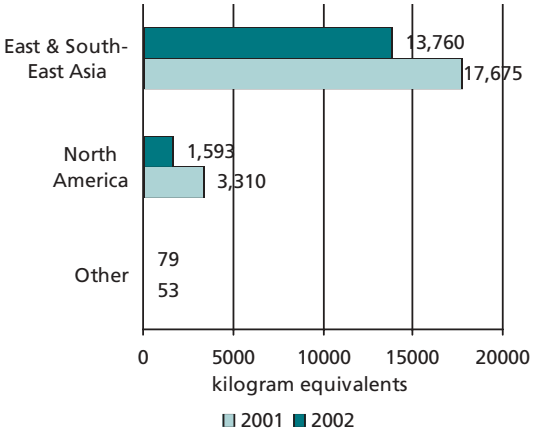
Source: UNODC, Annual Reports Questionnaire Data/DELTA.

Fig. 152: Distribution of methamphetamine seizures, 2001-2002 (N = 18.2 tons p.a)



Source: UNODC, Annual Reports Questionnaire Data/DELTA.

Fig. 153: Methamphetamine seizures in 2001 and 2002



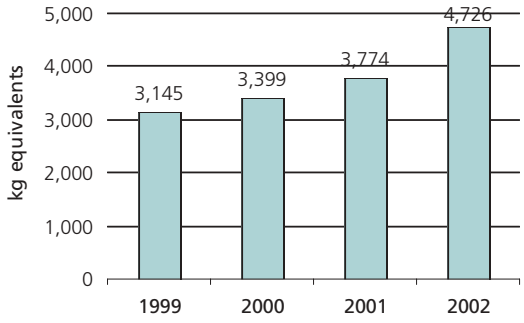
Source: UNODC, Annual Reports Questionnaire Data/DELTA.

2.4.2.2. Amphetamine

Fifty-eight countries reported seizures of amphetamine in 2002. Though significantly smaller than those of methamphetamine, seizures of amphetamine showed an ongoing increase in 2002 (+25%). In 2001/2002 almost 90% of global amphetamine seizures took place in Europe and, within Europe, more than 90% in Western Europe. Amphetamine seizures outside Europe were mainly reported from the Near and Middle East, North Africa and North America. Over the last few years, the world's largest amphetamine seizures have been made in the UK (accounting for more than a third of global seizures [aj]), reflecting the country's position as the world's largest amphetamine market. The next largest seizures in 2002 were reported from Belgium (11%) the Netherlands (10%), Germany (8%) and Sweden (7%). Amphetamine seizures increased in Western Europe and, to an even greater extent, in Eastern Europe, but declined in the rest of the world in 2002.

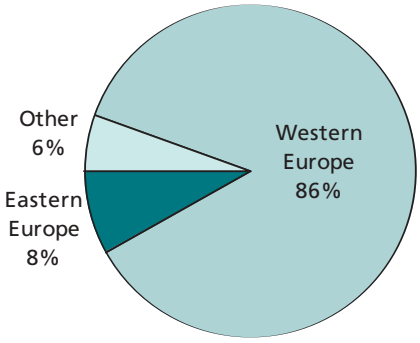
aj) At the time of writing, since the UK has not yet reported seizure data for 2002, it is assumed, for the purposes of this analysis, that seizure levels in 2002 were similar to those reported in 2001.

Fig. 154: Global amphetamine seizures



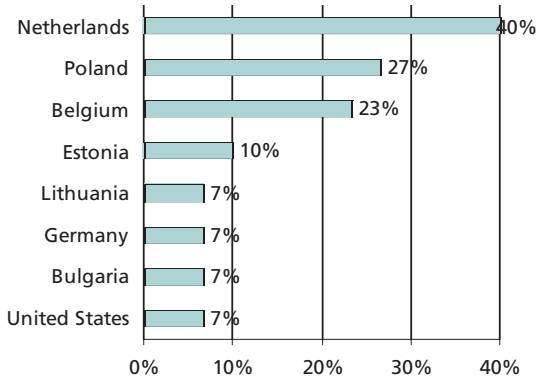
Source: UNODC, Annual Reports Questionnaire Data/DELTA.

Fig. 155: Seizures of amphetamine in 2001-2002 (N = 4.3 tons p.a.)



Source: UNODC, Annual Reports Questionnaire Data/DELTA.

Fig. 156: Origin of amphetamine in 2002*

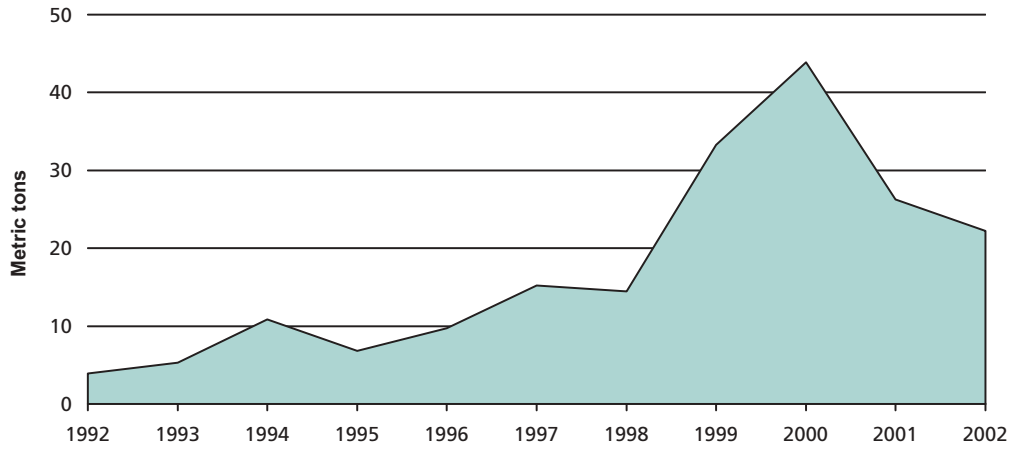


* Number of times a country was identified by other countries as a source country, expressed as a percentage of all countries reporting this question (N = 30).

Source: UNODC, Annual Reports Questionnaire Data/DELTA.

Twenty-one countries were identified as sources of amphetamine in 2002. The main source country continues to be the Netherlands: 40% of all countries reporting a source of the amphetamine they seized identified the Netherlands as the main source country. Authorities in the UK estimate that 90% of their imported amphetamine originates in the Netherlands. Authorities in Sweden estimate that 65% of their amphetamine comes from the Netherlands. The French authorities identified 46% of the amphetamine on their market as having originated in the Netherlands and 33% in Belgium. The next most frequently identified source countries for amphetamine exports were Poland and Belgium, followed by the Baltic countries (Estonia and Lithuania).

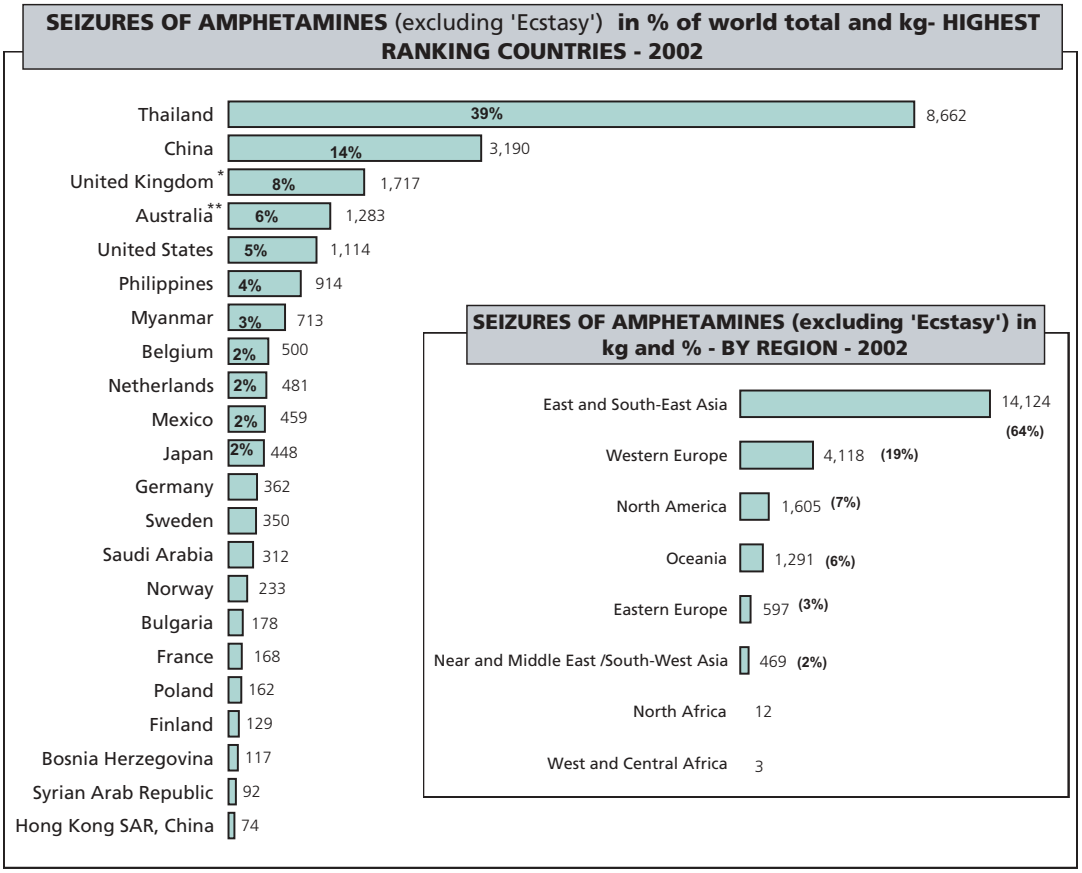
Fig. 157: Global seizures of Amphetamines*, 1992 - 2002



* Excluding 'Ecstasy'

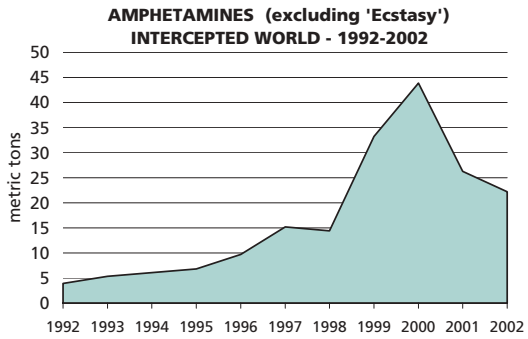
Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Metric tons	4	5	11	7	10	15	14	33	44	26

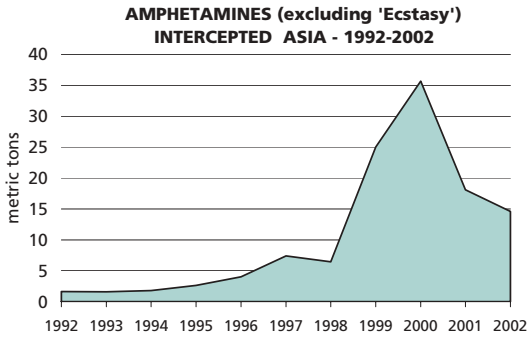
* metric ton equivalents. 1 unit assumed to be equivalent to 30mg.

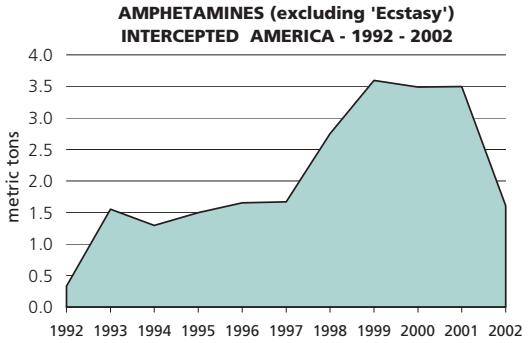


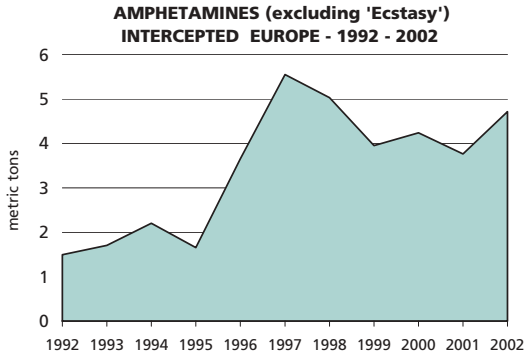
* data refer to 2001.
** data for Australia include seizures of ecstasy.

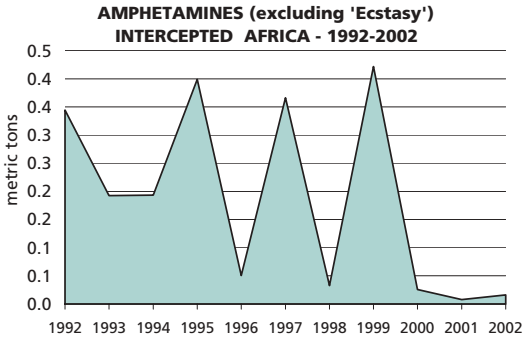
Fig. 158: Interception of Amphetamines

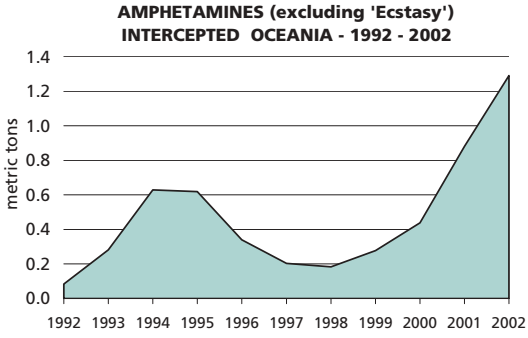




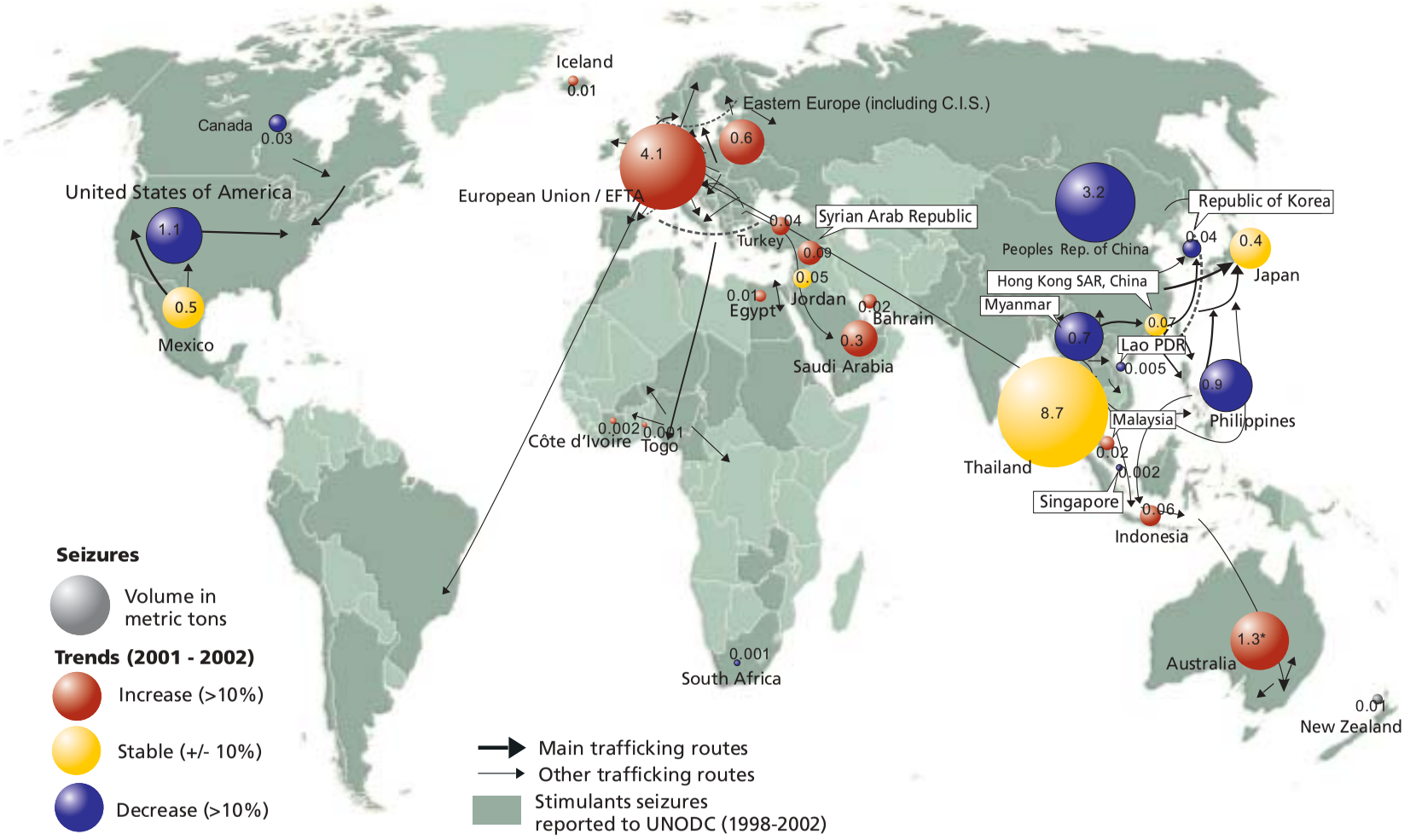








Map 20: Seizures of amphtamine-type stimulants (excluding ecstasy) 2001 - 2002: extent and trends (countries reporting seizures of more than 10 kg.)



** Includes seizures of ecstasy*

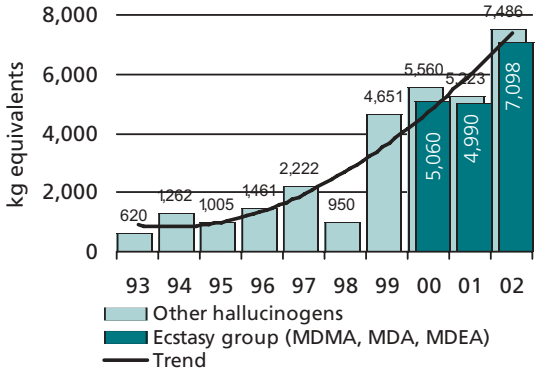
Note: Routes shown are not necessarily documented actual routes, but are rather general indications of the directions of illicit drug flows.

2.4.2.3. Ecstasy

Strong increase in seizures in 2002

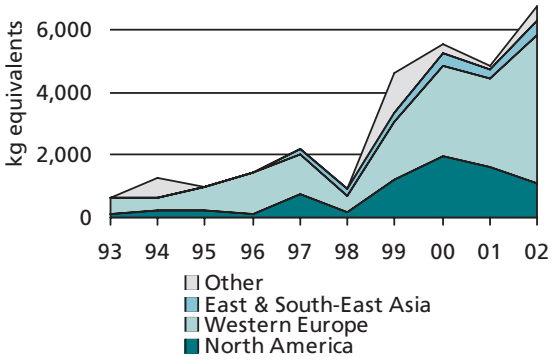
Seizures of ecstasy showed a clear upward trend in the 1990s, followed by a temporary stabilization between 1999 and 2001, and a renewed upward trend in 2002, when they were 42% higher than the previous year. It should be noted that a separate reporting category for the 'ecstasy' group of substances (MDMA, MDA, MDEA) was only introduced in 2000, when the Annual Reports Questionnaire, the main source of data from Governments, was revised. Prior to that, ecstasy seizures were reported under the category of 'other hallucinogens'. Analysis of seizure data shows that the bulk of the substances reported under the category of 'other hallucinogens' is accounted for by ecstasy (95% in 2001/2002). This category therefore seems to be a reasonably good proxy for tracing the trend of ecstasy seizures over the last decade.

Fig. 159: Ecstasy seizures, 1993-2002



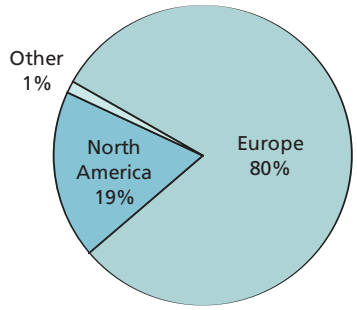
Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Fig. 160: Ecstasy seizures, 1993-2002



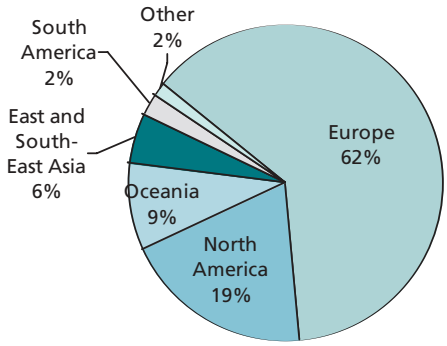
Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Fig. 161: Distribution of ecstasy seizures, 1993-94 (N = 0.9 tons p.a.)



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Fig. 162: Distribution of ecstasy seizures, 2001-2002 (N = 6 tons p.a.)



Source: UNODC, Annual Reports Questionnaire Data / DELTA.

Concentration in Europe, but increases in other regions

In the early 1990s ecstasy trafficking was almost exclusively concentrated in Europe. In recent years, however, it has spread throughout the world. The European proportion of ecstasy seizures thus fell from 80% of world seizures in 1993/1994 to 62% in 2001/2002. More than 95% of these were made in Western Europe. The regional distribution of ecstasy seizures in the rest of the world, in 2001/2002, were 19% in North America, 9% in Oceania region, 6% in East and South-East Asia, 2% in South America (including the Caribbean) and 1% in the Near and Middle East. In 2002, ecstasy seizures increased strongly in Oceania, South America, the Caribbean, the Near and Middle East and Europe, but declined - for the second year in a row - in North America.

Seizures of ecstasy were reported by 79 countries in

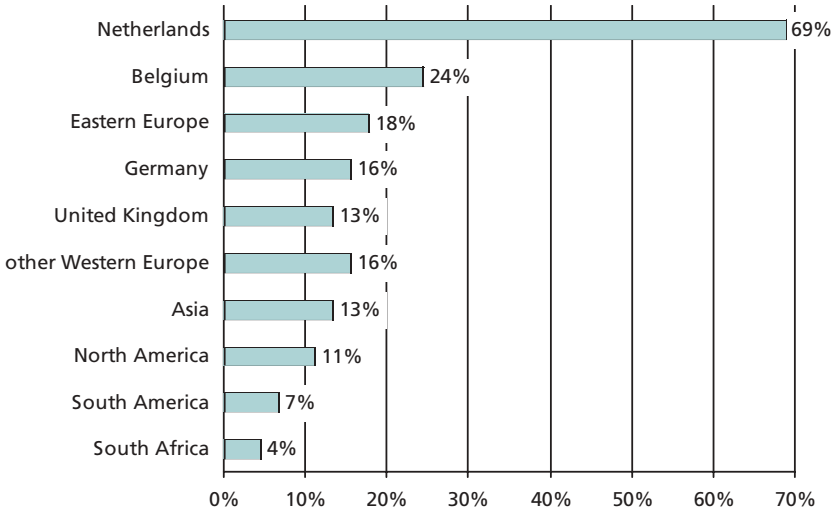
2002, up from 67 in 2001, 37 in 1995 and 20 in 1992. The largest seizures worldwide were reported from Belgium and the Netherlands with 25% and 24% of global seizures, respectively. Significant ecstasy seizures also took place in the UK, the USA, Germany, China, France, Spain, Israel, Canada and South Africa.

'Internationalization' of trafficking despite concentration of production

Slightly less than 70% of countries reported that the ecstasy found on their markets in 2002 originated in the Netherlands, down from 75% in 2001. Although Dutch criminal groups manufacture ecstasy, they do not appear to be significantly involved in its international traffic. In recent years Israeli and Dominican criminal groups were found to have been behind many transatlantic shipments of ecstasy from the Netherlands and other European countries to the USA, and several Chinese criminal groups became involved in smuggling ecstasy from the Netherlands to South-East Asia. The second most frequently mentioned source of ecstasy was Belgium, reflecting a shift of some criminal groups as controls were tightened in the Netherlands. The UK reported that 80% of ecstasy imports originated in the Netherlands and 20% in Belgium. France reported that 65% of seized ecstasy originated in the Netherlands and 9% in Belgium. Authorities in Italy identified almost all of the ecstasy on their market as coming from either the Netherlands or Belgium. Croatia reported that 60% of its ecstasy seizures originated in the Netherlands and 10% in Belgium.

Other frequently mentioned European sources of ecstasy were Germany, the UK and a number of East European countries, including Estonia, Poland, Bulgaria, the Czech Republic and Hungary. In Asia, Thailand, China and Indonesia were the most frequently reported sources. The USA and Canada were the most frequently identified sources in North America; and Colombia, Suriname and Mexico in Latin America. In Africa, the Republic of South Africa was the most frequently reported source of ecstasy. Though a country identified/reported as a source need not necessarily be the actual source of the drugs, it should be noted that most of the countries cited here as sources have, in fact, dismantled ecstasy laboratories in their territories over the last few years. In practice, however, it may not always be easy to differentiate between ecstasy produced in the Netherlands and Belgium.

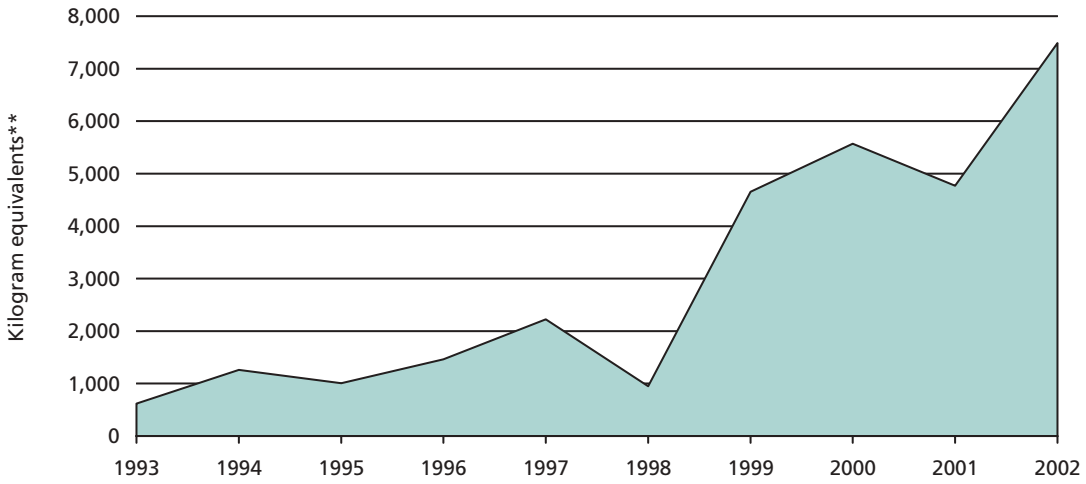
Fig.163: Origin of ecstasy*



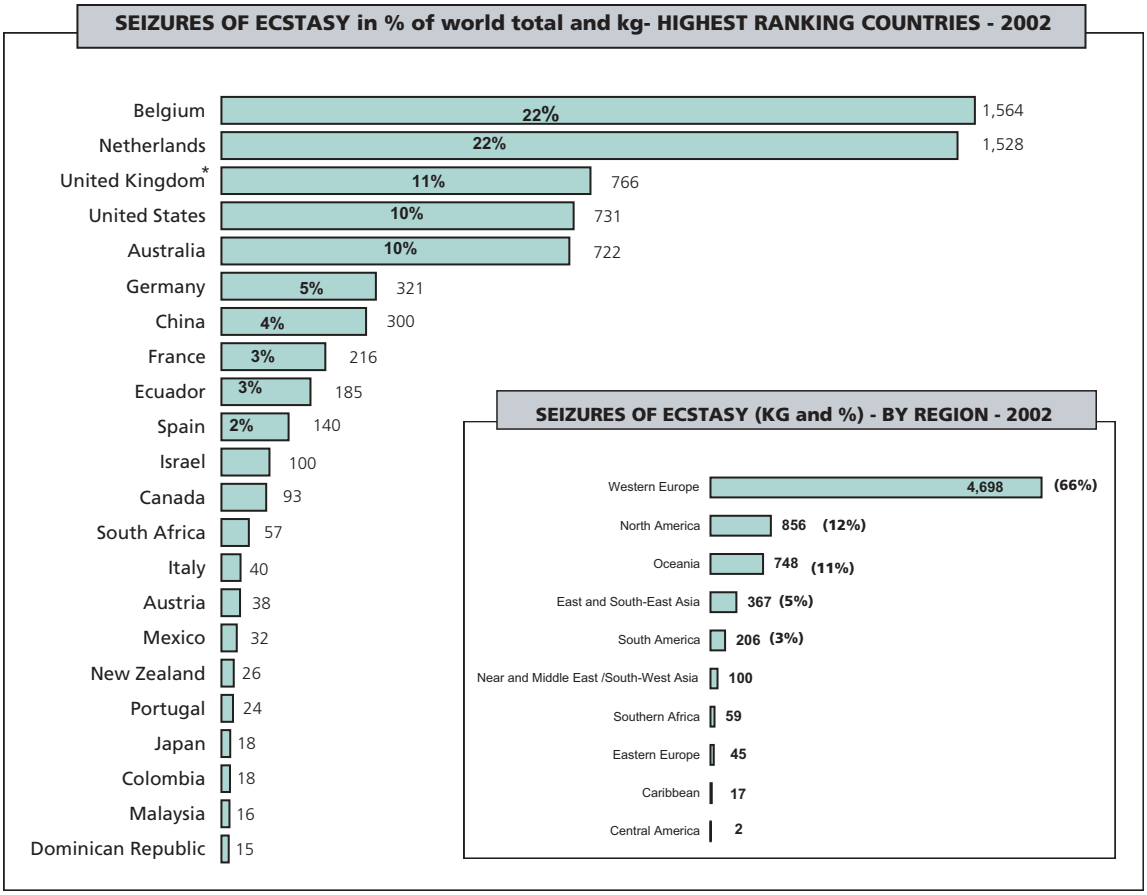
* Number of times a country/region was identified by other countries as a source country for ecstasy, expressed as a proportion of countries providing such information in 2002 (N = 45).

Sources: UNODC, Annual Reports Questionnaire Data, C/INTERPOL/WCO, Individual Seizures Database.

Fig. 164: Global seizures of Ecstasy*, 1993 - 2002

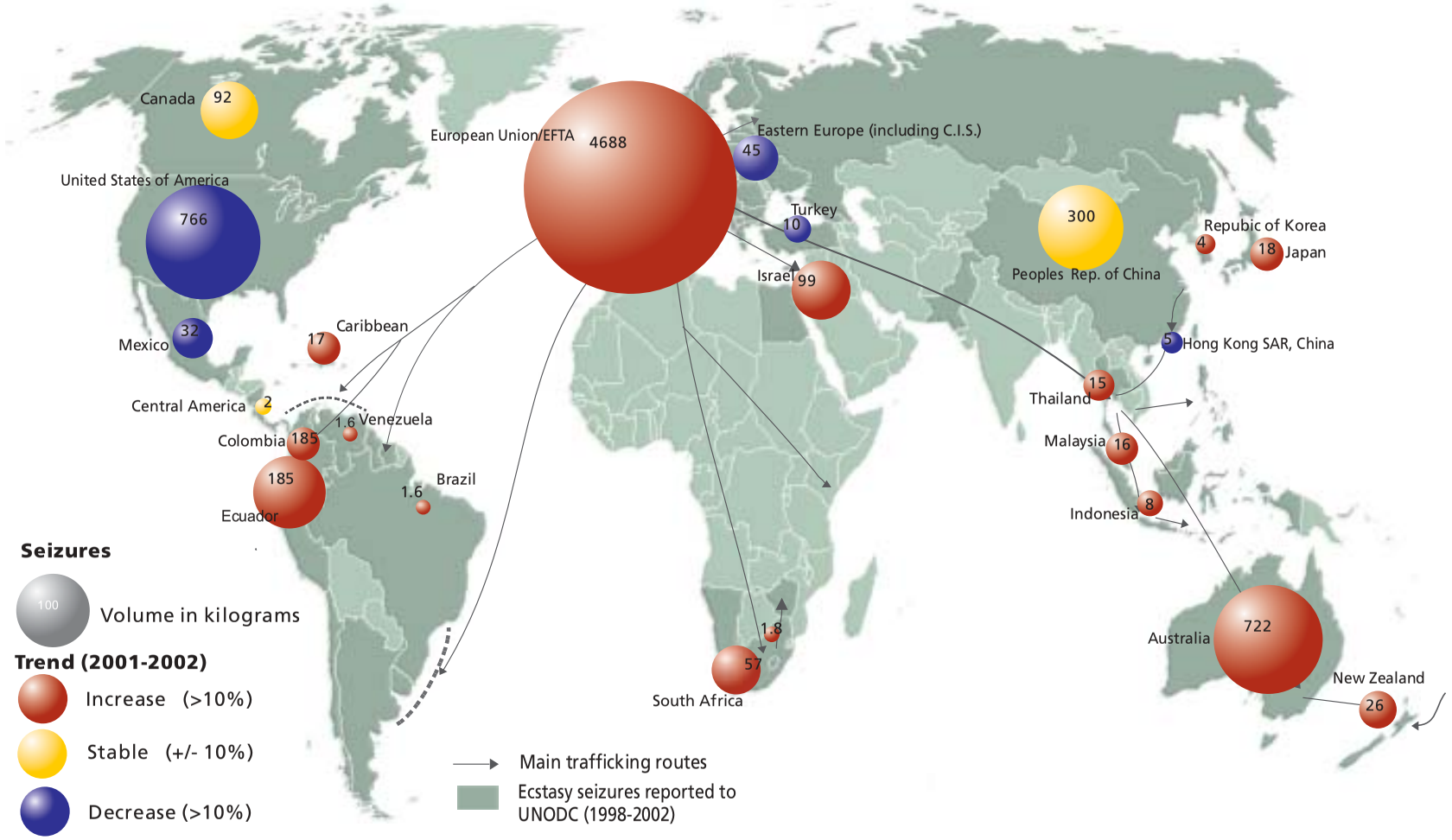


* Reporting on 'Ecstasy' seizures only started with the new ARQ in 2001; before, Ecstasy seizures were included under the category of 'hallucinogens other than LSD'. Trend data shown above refer to this broader category. In 2002, Ecstasy accounted for 95% of the seizures in this group.
** 1 unit is assumed to be equivalent to 100mg of MDMA.



* data refer to 2001.

Map 21: Seizures of Ecstasy (MDA, MDEA, MDMA) 2001 - 2002: extent and trends (countries reporting seizures of more than 10 kg.)



Note: Routes shown are not necessarily documented actual routes, but are rather general indications of the directions of illicit drug flows.

2.4.3. Abuse

2.4.3.1. Extent

Use of Amphetamine-type stimulants

Amphetamine-type stimulants (ATS), as defined by UNODC, consist of (i) 'amphetamines' (amphetamine, methamphetamine), (ii) a number of other synthetic stimulants such as methcathinone, phentermine, fenetylline, etc. and (iii) 'Ecstasy' (MDMA; related products such as MDA and MDME, grouped together with MDMA under the heading of 'ecstasy-group substances'). These substances are chemically or pharmacologically related, and consumed by similar user populations in several countries[ak]. While consumption of 'amphetamines' and of 'ecstasy' can be regarded as increasingly global in nature, most of the other synthetic stimulants only play a role at the regional level (e.g. methcathinone in the countires of the former Soviet Union and in the USA or fenetylline in countries of the Arabian peninsula).

The typical user 'profiles' of the various ATS are different. In most countries, ecstasy is consumed by youth and young adults in a recreational setting, often linked to dance events. In developing countries its consumption is mainly associated with youth of the upper class while in developed countries consumption is spread across all social classes. Other ATS are consumed by both youth and adults. Consumption by adults tends to be more prevalent amongst those of the lower income levels ('poor man's cocaine'). A number of countries suffer from serious methamphetamine problems and related issues of violence, serious health degradation and treatment demand. Methamphetamine is in general more potent than amphetamine and thus causes more serious health problems (including paranoia and strokes) and problems of drug related violence.

2.5.3.1.1. Amphetamines

Amphetamines account, on average, for some 10% of treatment demand at the global level. The highest proportion of treatment demand for ATS abuse is found in Asia (17%), ahead of Australia (14%), Europe (10%), Africa (7%) and the Americas (5%), including 11.5% in the USA. In a number of countries in East and South East Asia, particularly Thailand, the Philippines, Japan, the Republic of Korea and, to a lesser extent, in Taiwan Province of China, methamphetamine is the main problem drug and plays a role similar to opiates in Europe or cocaine in the Americas. In parallel, a strong spread of recreational use of amphetamines took place in a large number of countries in the 1990s.

Amphetamines are used by an estimated 30 million people or 0.7% of the global population age 15-64. In addition, some 8 million people are estimated to take ecstasy. Use of amphetamine-type stimulants at the global level is thus more widespread than use of opiates (15 million people, or 0.4%) or cocaine (more than 13 million people, or 0.3%).

More than 60% of the users of amphetamines (mostly methamphetamine) are found in Asia, with East and South East Asia accounting for the bulk of ATS use (more than 95% of all users in Asia). The prevalence rate of ATS use (excluding ecstasy) in East-and South-East Asia is 1.3% of the population age 15-64, almost twice the global average. The world's highest levels of methamphetamine consumption, prior to the crackdown on its methamphetamine market in 2003, were reported from Thailand: annual prevalence of 2.4% of the population age 12-65 according to household survey results in 2001. According to other official estimates which derived the total number of methamphetamine users through indirect methods, 5.6% of the Thai population age 15-64 used methamphetamine (or 'ya-ba' as it is locally known) at the beginning of the millennium.

The next largest proportions of ATS use among the general population are found in Oceania (2.8%), notably in Australia (4% of the population age 15-64 in 2001) and New Zealand (3.4% in 2001). Over the last decade a

ak) UNDCP, *Amphetamine-type Stimulants: A Global Review*, Vienna 1996.

Table 13: Annual prevalence estimates of consumption of amphetamines: 2001-2003

	Number of people (in million)	in % of population age 15 - 64
OCEANIA	1.94	2.78
EUROPE	2.37	0.44
- West Europe	1.79	0.58
- East Europe	0.59	0.25
AMERICAS	4.96	0.89
- North America	3.46	1.25
- South America	1.50	0.54
AFRICA	2.13	0.44
ASIA	18.16	0.76
GLOBAL	**29.56**	**0.73**

Abuse above global average
Abuse close to global average
Abuse below global average

Sources: UNODC, Annual Reports Questionnaire data, various Govt. reports, reports of regional bodies, UNODC estimates.

shift from amphetamine to the more potent methamphetamine has taken place in this region.

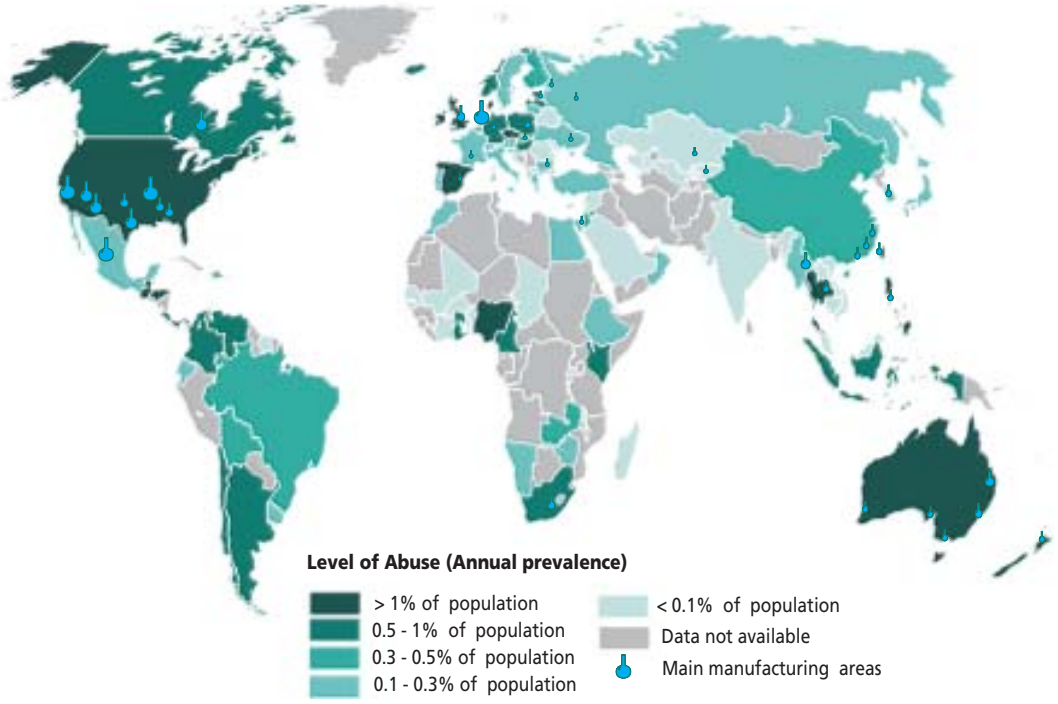
The Americas and Europe together account for a quarter of global use of amphetamines. Use of amphetamines in North America affects 1.3% of the population age 15-64 and is thus clearly above average in the Americas (0.9%). Annual prevalence of stimulants use in the USA affected 1.4% of the population age 12 and above in 2002, equivalent to 1.65% of the population age 15-64. About half of all ATS use is linked to methamphetamine.

The highest levels of amphetamines use in Europe have been reported from the countries of Western Europe (0.6% of the population age 15-64), notably from the UK (1.6% in 2003), Ireland (1.6% in 2002), Denmark (1.3% in 2000) and Spain (1.2% in 2001). The highest levels among the new EU member countries are found in the Czech Republic (1.1% in 2002), Estonia (1%) and Poland (0.7%), i.e. countries which also happen to be among the largest ATS producers in Central and Eastern Europe. Most of the ATS use in Europe concerns amphetamine. The only exception is the Czech Republic where the main ATS of abuse is methamphetamine.

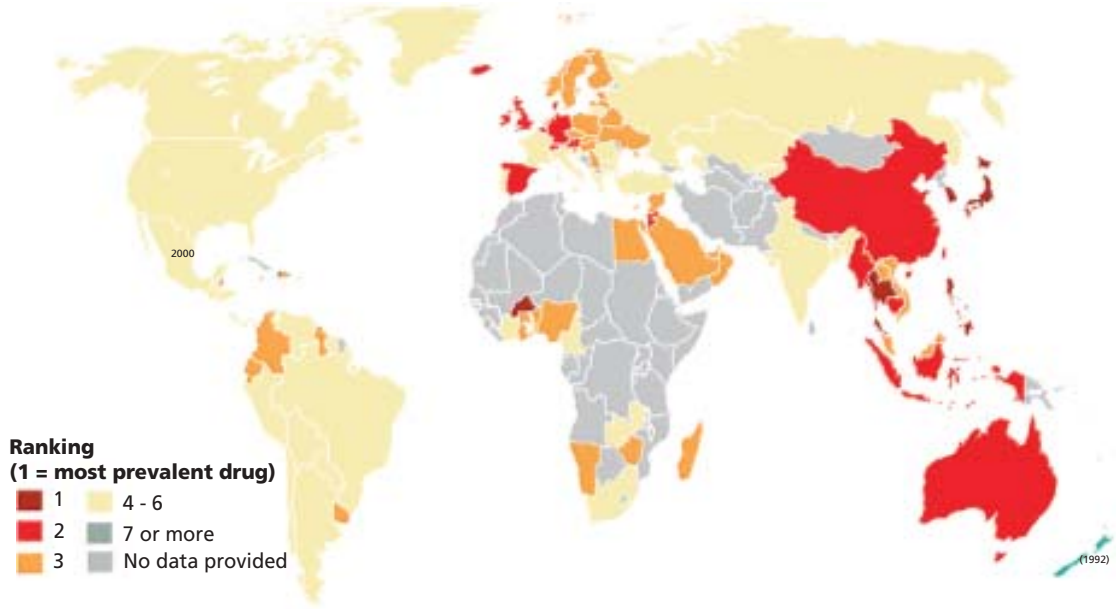
While supply of amphetamines in North America, Europe and Asia is largely from clandestine sources, supply in South America and Africa is still mainly diversion from licit channels. There are, however, indications that in a number of countries in South America use of licit ATS has been curtailed over the last decade.

The highest levels of ATS use in Africa have been reported from Western Africa, followed by countries in Southern Africa. Various parallel markets, at the local level, supply the demand for ATS in Africa. In South Africa, in addition, some clandestine production of ATS has emerged to supply the local markets.

Map 22: Use of amphetamine-type stimulants 2001 - 2003 (or latest year available)



Map 23: Ranking of amphetamine-type stimulants in order of prevalence in 2002 (or latest year available)



Sources: UNODC Annual Reports Questionnaires data, National Household Surveys on Drug Abuse, UNODC Rapid Assessement Studies, Council of Europe, ESPAD.

2.4.3.1.2. Ecstasy

More than 8 million people or about 0.2% of the global population age 15-64 consume ecstasy. Rates significantly above the global average have been reported from countries in Oceania, Western Europe and North America. More than a third of global consumption is concentrated in Europe and more than 40% in North America, a result of strong growth rates in the late 1990s. North America, Western Europe and Oceania together account for some 80% of global ecstasy use.

The highest levels of ecstasy use were reported from Australia (3.4% of the population age 15-64 in 2001), followed by Ireland (3.1% of the population age 18 and above in 2002), the Czech Republic (2.5% of the population age 15-64 in 2002), New Zealand (2.2% of the population age 15-64 in 2001), the UK (2% of the population age 16-59 in 2003), Spain (1.8% of the population age 15-64 in 2001), the province of Ontario in Canada (1.8% of the population age 18 and above in 2000), the USA (1.3% of the population age 12 and above, equivalent to 1.6% of the population age 15-64) and the Netherlands (1.5% of the population age 15-64 in 2001).

Ecstasy use is spreading to Eastern Europe as well as to developing countries, notably in the Americas, Southern Africa, the Near and Middle East and South-East Asia.

A number of school surveys in countries outside Western Europe, North America and Oceania confirm the increasing importance of ecstasy as the drug of choice among youth.

Importance of ATS use compared to other drugs

The relative importance of ATS use (including ecstasy) is strongest in the East and South-East Asia and Oceania, where it is ranked as either the 1st or 2nd drug of choice. Methamphetamine is the main ATS of abuse in most of East & South-East Asia and in the Oceania region. ATS were reported as the main substances of abuse by the authorities of Thailand, Japan, the Republic of Korea and the Philippines and as the 2nd most widespread substance of abuse by China, Myanmar, Indonesia and Australia.

Amphetamine and ecstasy are ranked as the 2nd most widespread drug in several countries of western Europe, including the UK, Ireland, Spain, Germany, Switzerland, Austria, Belgium and Iceland and 3rd in the Netherlands after cannabis and cocaine. In the Nordic countries and in several Central and East European countries ATS are ranked 3rd after cannabis and sedatives (mainly benzodiazepines).

Table 14: Annual prevalence estimates of consumption of ecstasy: 2001-2003

	Number of people (in million)	in % of population age 15 - 64
OCEANIA	0.54	2.23
EUROPE	3.02	0.56
- West Europe	2.45	0.80
- East Europe	0.57	0.24
AMERICAS	4.00	0.75
- North America	3.56	1.28
- South America	0.45	0.17
AFRICA	0.11	0.02
ASIA	0.59	0.02
GLOBAL	**8.26**	**0.21**

Abuse above global average

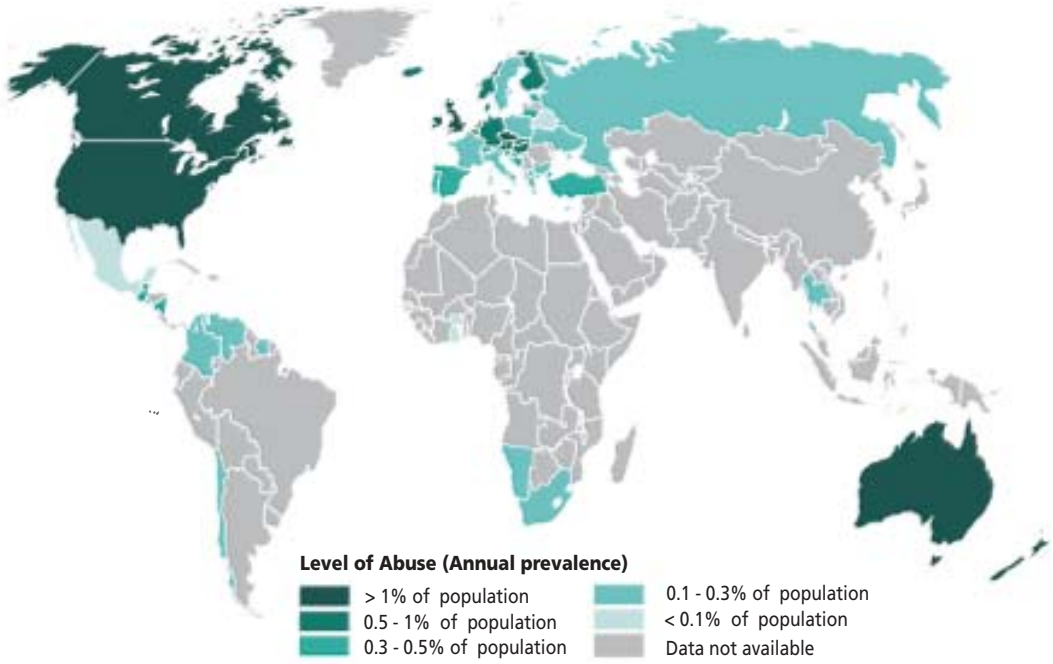
Abuse below global average

Sources: UNODC, Annual Reports Questionnaire data, various Govt. reports, reports of regional bodies, UNODC estimates.

In most countries of the Near East, ATS (mostly fenetylline, locally known as captagon) are ranked 3rd after cannabis and sedatives or cannabis and opiates. In Israel and in Jordan ATS rank 2nd. In contrast to other countries in the region, the main ATS encountered in Israel is ecstasy.

In Africa and in the Americas ATS are ranked either 3rd or 4th. While in North America methamphetamine is the main ATS of abuse, most countries of South America and Africa reported amphetamine (or related stimulants contained in medicaments) as the main ATS.

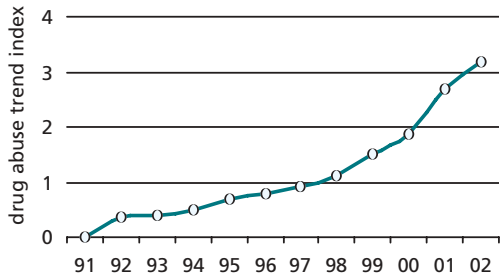
Map 24: Use of ecstasy 2001 - 2003 (or latest year available)



2.4.3.2. Trends

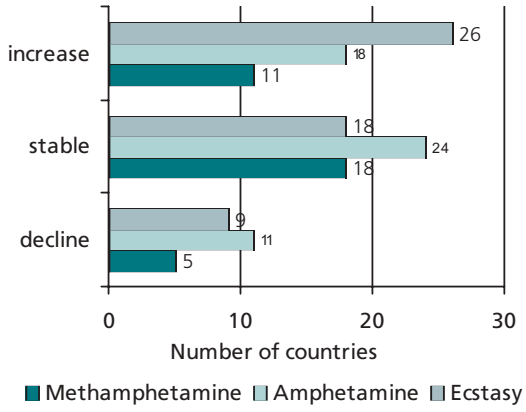
The number of countries reporting trends in ATS consumption almost tripled between 1992 and 2002, reflecting the rising importance of ATS use across continents. A majority of the countries reporting on ATS trends saw an increase in consumption levels over the 1992-2002 period. Thus UNODC's Drug Abuse Trend Index reveals a clear increasing trend, notably in the late 1990s and in the first two years of the new millennium. Most of the increase in 2002 was related to the use of ecstasy. In contrast, more than half of all countries reporting on methamphetamine saw a stabilization in the use of that drug.

Fig. 165: Global ATS consumption trend based on national experts' perceptions



Source: UNODC, Annual Reports Questionnaire Data.

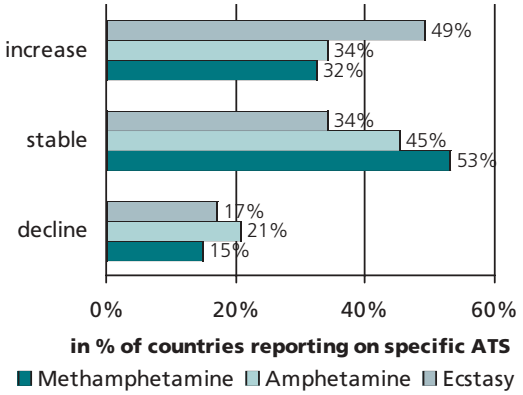
Fig. 166: Trends in ATS consumption in 2002



Source: UNODC, Annual Reports Questionnaire Data.

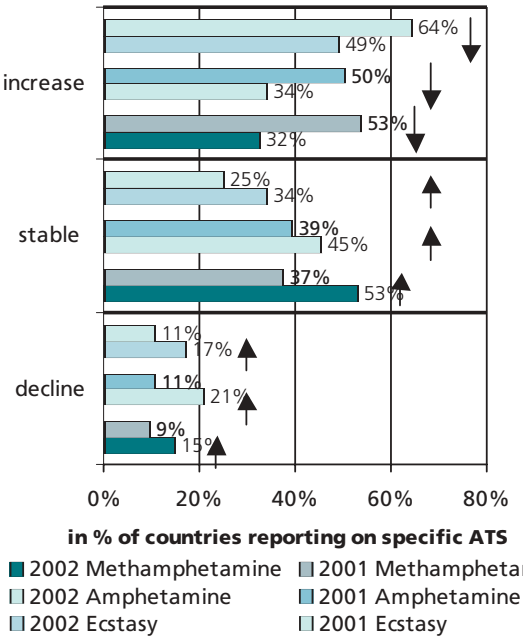
The overall increase of ATS use in 2002 was, however, less significant than a year earlier. The number of countries reporting increases in ecstasy, amphetamine and methamphetamine use declined in 2002 (from two thirds of all countries reporting on ecstasy in 2001 to about half of the countries in 2002; and from about half of the countries reporting on amphetamine and methamphetamine in 2001 to about a third in 2002). In parallel, the number of countries reporting declines of ecstasy, amphetamine and methamphetamine consumption increased in 2002.

Fig.167: Trends in ATS consumption in 2002



Source: UNODC, Annual Reports Questionnaire Data.

Fig. 168: ATS consumption trends in 2001 and 2002



Source: UNODC, Annual Reports Questionnaire Data.

2.4.3.1. 'Amphetamines' consumption trends

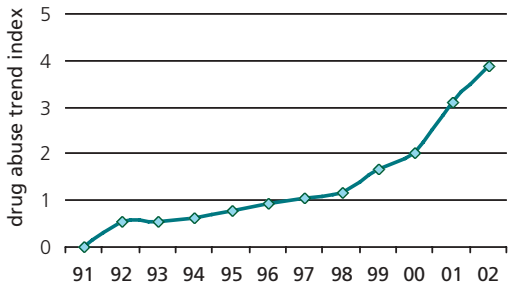
For the purposes of this section, amphetamine and methamphetamine have been combined and are dealt with under the heading of 'amphetamines' (ATS excluding ecstasy). A subsequent section will then cover ecstasy use.

ASIA

Though overall use continued rising in 2002, a number of countries in East and South-East Asia are reporting some stabilization/decline in consumption levels

Over the last decade, on average, increases in the use of amphetamines (methamphetamine and amphetamine) were more pronounced in Asia than increases at the global level. Two thirds of all countries in Asia reporting trends on amphetamines in 2002 were located in East- and South-East Asia -- the sub-region known to have the highest levels of methamphetamine use in the world.

Fig. 169: Amphetamines consumption trend in Asia based on national experts' perceptions

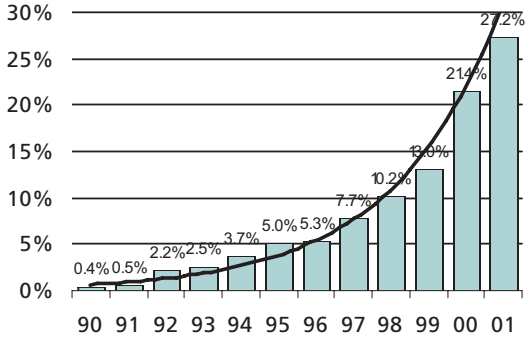


Source: UNODC, Annual Reports Questionnaire Data.

Large increases in the use of methamphetamine were reported from China and Singapore in 2002; some increases were reported from Myanmar and the Republic of Korea. Japan reported that consumption levels had remained stable and the Philippines, Hong Kong SAR of China and Indonesia reported falling levels of methamphetamine use.

One national study among ATS (methamphetamine, ecstasy and ephedrine) users across the People's Republic of China (conducted by the National Institute on Drug Dependence and the School of Public Health over the February 2001 - January 2002 period) confirmed that ATS use was a rather recent phenomenon in China. Eighty percent of those currently consuming ATS only started to do so in 1997 or later; more than a quarter of the ATS users only started in 2001. Concentrations of ATS use are still in the southeast coastal areas of China, though ATS use is spreading to inland regions. ATS use was found to be fairly common in public areas of entertainment (such as dance halls) in large and middle-sized cities. The study also suggested MDMA, growing faster than methamphetamine use, emerged as the main ATS in China, which is a rather startling result as ecstasy was not encountered in China until 1997. Methamphetamine is mostly in the form of 'ice' (domestically produced, notably in Guangdong and Fujian provinces), though significant imports of methamphetamine pills from neighbouring Myanmar, destined for markets in north-eastern China, were also reported in 2003. Against the background of a rapidly expanding ATS market, Chinese authorities launched major operations over the August 2003-January 2004 period to dismantle trafficking rings (focussing on the Fujian and Guangdong provinces) and to prevent ATS use in dance halls and other entertainment locations[al].

Fig. 170: China: Year in which ATS were used for the first time (n = 1345 ATS users)*



Source: National Institute on Drug Dependence (Peking University) and School of Public Health (Peking University, "Characteristics and Consequences of Amphetamine-type Stimulants Abuse in China", in Centre for Drug Research, Universiti Sains Malaysia, Report of the Asian *Multicity Epidemiology Workgroup 2002*.

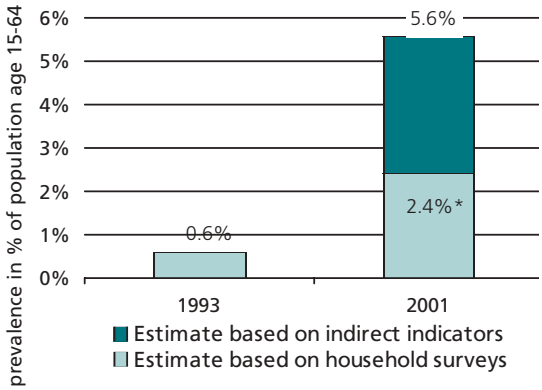
Some of the strongest increases in recent years were reported from Thailand where the proportion of people admitted to treatment for abusing methamphetamine

al) China National Narcotics Control Commission, 2003 Annual Report on Drug Control in China.

rose from 2.1% in 1995 to 50.5% in 2001. (Out of 39,931 admissions for treatment of substance abuse, 20,157 patients consumed methamphetamine in 2001.) In recent years, close to 80% of all reported violations against the drug laws were related to methamphetamine. Estimates provided by the authorities suggest that the total number of methamphetamine users rose 6-10 fold between 1993 and 2001, giving Thailand one of the highest methamphetamine prevalence rates in the world: affecting between 1 and 2½ million people[ai] in 2001 (2.4%[aj] to 5.6% of the general population age 15-64) depending on estimates. Against the background of a major methamphetamine epidemic, the Thai authorities launched large operations (February 1 to April 30, 2003) to crack down on the local ATS market. The operations were successful insofar as 43,000 drug dealers and 285,000 methamphetamine consumers reported themselves to the authorities. Of these 175,000 were sent to treatment. Overall more than 90,000 drug traffickers were arrested. Methamphetamine prices rose 3-4 fold over the first two months following the market crack-down[ak]. Though prices fell again to some extent in subsequent months, local supply did not fully recover. It can be assumed therefore that overall methamphetamine use declined in 2003. Few new users are thought to have started to experiment with methamphetamine and the number of various drug related crimes such as burglaries and robberies has declined. Some 2,600 homicides were reported during the time of the operations (roughly double the 'normal level'). About half of these deaths were considered by the police to have been 'drug-related'. There were also reports that drug traffickers in neighbouring Myanmar, facing difficulties selling their product in Thailand, targeted the Indian market instead, which resulted in rising levels of methamphetamine use in the eastern states of India.

Another important market for methamphetamine in South-East Asia is the Philippines. Since 1992, methamphetamine (locally known as shabu) has been the prime drug of abuse for those seeking treatment. Close to 90% of all violations against the drug laws are related to methamphetamine. Youth surveys, conducted in the mid 1990s and in 1997/98, found a clear increase in life-time prevalence rates from 7% (1.4 million) to 10% (2.1 million) of those aged 15-30. A Rapid Assessment Study, conducted in 3 locations (Antipolo, Cainta and Tanay) in Rizal province, located to the East of the

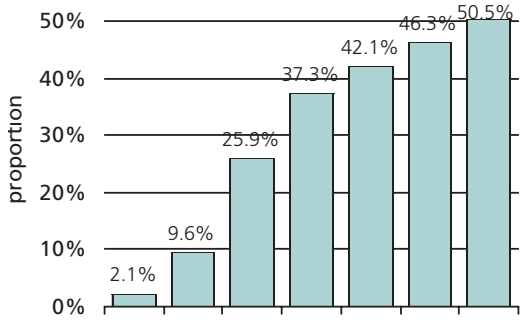
Fig. 171: Methamphetamine use in Thailand, 1993-2001



* prevalence among population age 12-65

Sources: Thailand Development Research Institute, 1995 and ONCB, *Thailand Narcotics Annual Report 2002*, *ONCB, Thailand Narcotics Annual Report 2003*.

Fig. 172: Methamphetamine abuse in Thailand:
Proportion of drug addicts using methamphetamine over the last 30 days prior to entering treatment
(Number of patients in 2001: 39,931)



Source: ONCB, *Thailand Narcotics Annual Report 2002* and previous years

ai) The number of all drug users was estimated at 2.65 million people by the authorities, 90% among them were methamphetamine users (derived from the number of drug addicts who applied for treatment in 2001). (Office of the Narcotics Control Board, Thailand Narcotics Annual Report 2002, p. 9.)

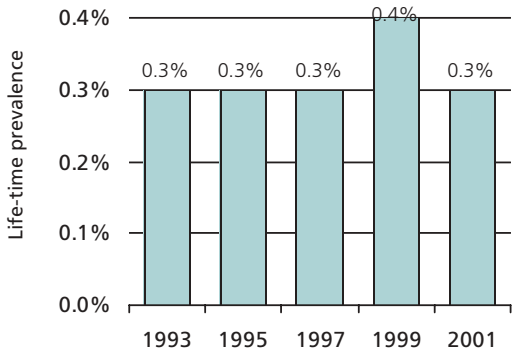
aj) Thailand also published results of a household survey, conducted in 2001. According to this survey, 1,092,500 people used Ya-ba (methamphetamine tablets) within the last year, equivalent to 2.4% of the population age 12-65. Annual prevalence of all illicit drug use concerned 1.9 million people. Life-time prevalence of Ya-ba concerned 3.5 million people, equivalent to 7.8% of the population age 12-65. Past month prevalence of Ya-ba concerned about half a million persons, or 1.1% of the population age 12-65. (ONCB in collaboration of Assumption University, Chiang Mai University, Chulalongkorn University, Khon Kaen University, Rajapat Institute Pibulsongkram, Rajapat Insttitue Uttaradit and Songkhla University, "Preliminary Report of Estimation of Population Related with Substance Abuse", quoted in ONCP, Thailand Country Report, February 2003.)

ak) ONCB, "*War on Drugs" Concept and Strategy*, Bangkok, Dec. 2003.

capital Manila in June 2003, found a life-time prevalence rate of shabu of 5.7% among youth (age 16-25 year olds), less than for the use of marijuana (8.6%), but more than for the use of any other drug[am]. Estimates of the overall number of regular methamphetamine users in the Philippines range from 500,000 people (1.1% of the population age 15-64), according to the National Drug Law Enforcement and Prevention Center for the late 1990s, to close to 1.8 million people according to the Dangerous Drugs Board. The latter figure refers to overall regular drug use. Based on the number of people in treatment and other indicators (seizures, arrests), it can be estimated that 70 to 90 per cent of drug abuse is methamphetamine related. Based on this, UNODC estimates that about 1.3 million people, or 2.8% of the population age 15-64, may be using methamphetamine. For 2002 and 2003, however, the authorities reported a significant decline in methamphetamine use as a consequence of successful supply reduction measures. Indeed, the above mentioned Rapid Assessment Study among youth revealed that for 14% of the youth shabu was perceived to be difficult or impossible to get, while only 9% considered shabu to be easy to procure.

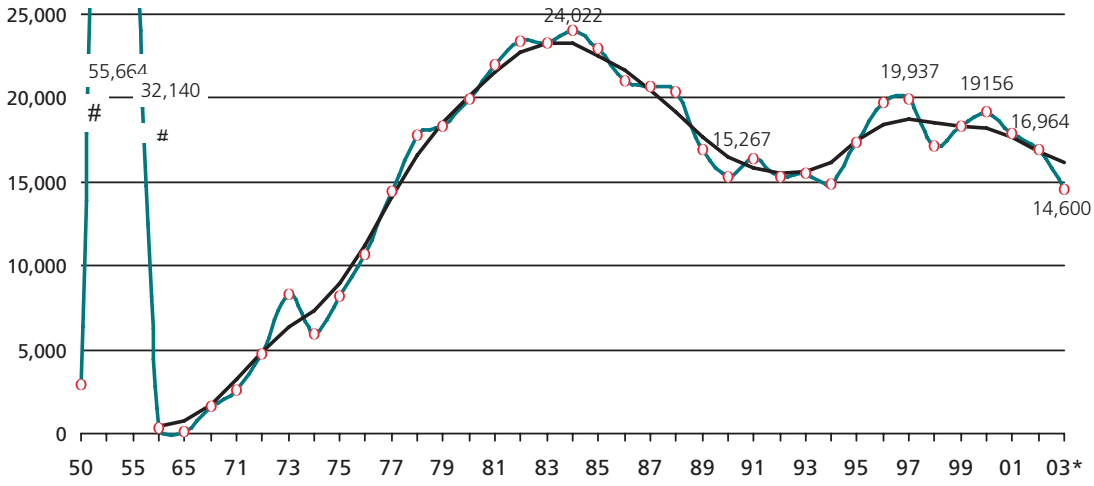
Japan is another important methamphetamine market in East Asia. Close to 90% of all reported violations against the drug laws are related to methamphetamine. Japan was the first country affected by methamphetamine abuse epidemics. These occurred in the early 1950s, in the 1970s, in the early 1980s, and again in the second half of the 1990s. Over the last few years, methamphetamine use appears to have stabilized according to prevalence surveys undertaken by the Ministry of Health. Arrest and seizure statistics even point to some decline in 2003.

Fig. 174: Japan, Methamphetamine use among the general population (age 15 and above)



Source: Ministry of Health, Labour and Welfare, *National Resident Survey on Drug Use, 2001*.

Fig. 173: Reported violations against the stimulants law in Japan, 1950-2003

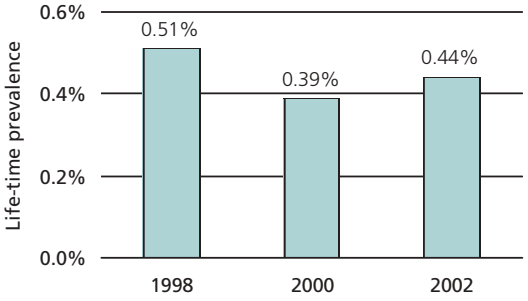


* data for 2003 are still preliminary.

Sources: Ministry of Health and Social Welfare; National Policy Agency of Japan; UNODC, ARQ data; Headquarters for the Promotion of Measures to Prevent Drug Abuse, New Five-Year Drug Abuse Prevention Strategy, July 2003. Statement by the Director for the Drug Control Division of the National Police Agency of Japan at the 47th session of the CND, March 2004.

am) UNODC, *Primary Prevention of ATS Abuse among Youth in the Philippines*, October 2003.

Fig. 175: Japan, Methamphetamine abuse among lower secondary school students (age 13-15)



Source: Ministry of Health, Labour and Welfare, *National Survey on the Awareness and Actual Conditions of Drug Abuse among Junior High School students*", 2002.

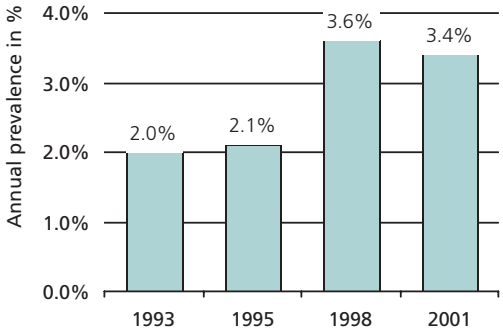
A combination of a broad range of preventive and supply control measures appears to have been responsible for this success. These measures may also have prevented Japan from suffering the same increases in methamphetamine use experienced by several other East and South-East Asian countries in recent years. While the trend in Japan towards stabilization/moderate decline in use is generally accepted, prevalence estimates continue to differ significantly depending on the methods used to establish them. Prevalence estimates range from 300,000 persons (0.3% of the population age 15 and above or 0.4% of the population age 15-64) based on household surveys conducted by the Japanese Ministry of Health[an] and reported to UNODC, to 2.8 million (3.2% of the population age 15-64) derived from indirect methods, based on other Japanese sources, regularly cited in the US International Narcotics Control Strategy Reports. According to the latter estimates, the number of methamphetamine addicts is around 600,000; the number of casual users is about 2.18 million. Based on the latter estimates, the Japanese authorities estimated the methamphetamine market to be between 10 and 20 metric tons per year (INCSR 2004). This would be equivalent to a wholesale value between $300 and $600 million and a retail value between $4 and $8 billion, making Japan, in financial terms, the most lucrative methamphetamine market in East and South-East Asia.

OCEANIA

Stabilization of amphetamines use in the Oceania region

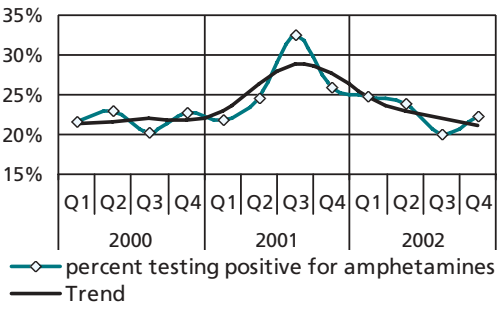
Australia and New Zealand are the main markets for amphetamines (notably methamphetamine) in Oceania. According to national household survey data from Australia, 3.4% of the population age 14 and above (or 4% of the population age 15-64) used amphetamines (methamphetamine and/or amphetamine) in 2001, the

Fig. 176: Australia, Annual prevalence of amphetamines use (population age 14 and above)



Australian Institute for Health and Welfare, *1998 National Drug Strategy Household Survey*, August 1999 and previous years.

Fig. 177: Australia: Percent testing positive for amphetamines among male police detainees*, 2000-2002



* unweighted average of results from Bankstown, Parramatta,South Port and East Perth.

Source: Australian Institute of Criminology, " *Drug Use Monitoring in Australia (Duma) Collection 1999-2002*" .

an) The lower numbers seen in household surveys may, however, also reflect the stigma associated with methamphetamine use and the fear that the personal acknowledgement of methamphetamine use could entail negative personal consequences.

second highest rate worldwide after Thailand (or the largest rate if only estimates from household surveys are compared; cross-country comparisons, however, may be partly misleading because the tendency to under-report drug use in Australia is less than in other parts of the world). The strong upward trend, reported over the 1995-1998 period, did not continue in subsequent years, and gave way to a period of stabilization.

The DUMA surveys ('Drug Use Monitoring in Australia' testing police detainees for drug consumption based on urine analysis) showed that, in the course of 2001, amphetamines use increased for a short period of time - reflecting substitution effects resulting from the heroin shortage in 2001 - before declining again in 2002. Similarly, data collected among injecting drug users (IDUs) showed a temporary increase in abuse in 2001 followed by a decline in 2002. The use of methamphetamine seems to be highest in South Australia and in Queensland.

AMERICAS

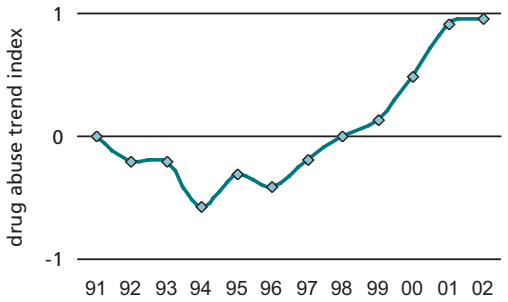
Some increase in the Americas …

UNODC's Drug Abuse Trend Index showed some increase in the use of amphetamines in the Americas as of the mid 1990s. The increase was, however, significantly less than in Asia.

… with mixed results reported from North America …

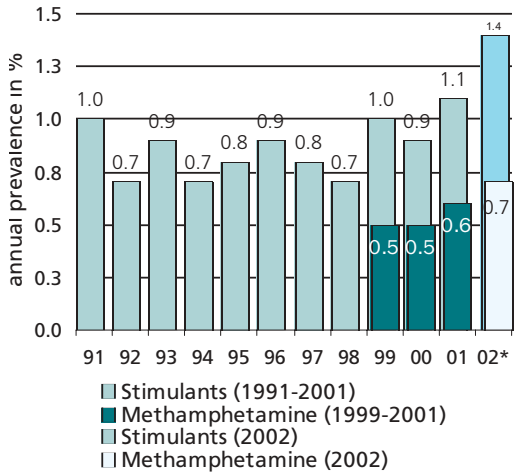
Results of surveys in North America over the last few years have been mixed. Use of amphetamines among the general population remained relatively stable over the last decade, though fluctuations were observed in individual years. Overall use of stimulants affected 1% of the general population age 12 and above in 1991 and 1.1% in 2001. Results for 2002 - which are not directly comparable with those of previous years - showed a prevalence rate of 1.4%. Half of the stimulant use was related to use of methamphetamine (0.7%).

Fig. 178: Amphetamines consumption trends in the Americas, based on national experts' perceptions



Source: UNODC, Annual Reports Questionnaire Data.

Fig. 179: Stimulants abuse in the USA among the general population (age 12 and above)



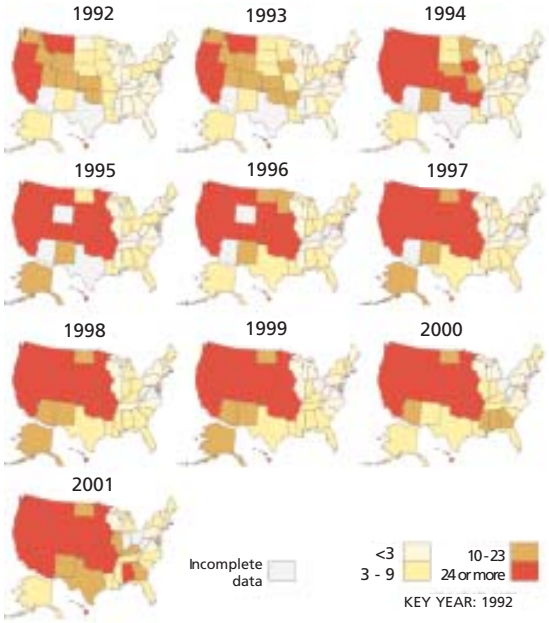
* due to changes in methodology, 2002 results are not directly comparable with results from previous years.

Sources: SAMHSA, Results from the *2002 National Survey on Drug Use and Health*, and SAMHSA, *US Household Survey on Drug Abuse, 2001* and previous years.

The number of people treated for amphetamines abuse, however, more than quadrupled over the 1992-2001 period, mainly due to methamphetamine abuse. More than 80% of all stimulant related treatment demand in 2001 was caused by methamphetamine, up from 66% in 1992. Data also show that over the last decade methamphetamine abuse gradually spread from the western states towards the rest of the country. Nonetheless, abuse is still highest in the western and south-western parts of the country and rather low in the eastern states of the USA.

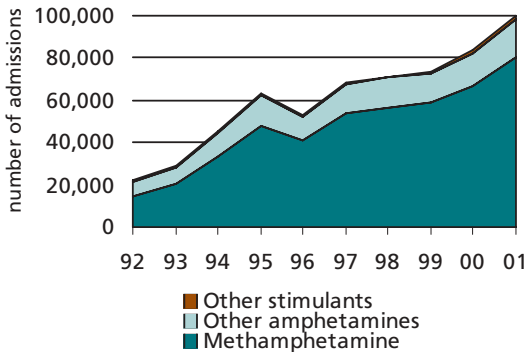
There were also positive trends to report. In both the USA and in Canada (Ontario) use of amphetamines among high-school students peaked at high levels around 1996/97 and has been showing a downward trend since, including in 2003. In the USA, use of amphetamines in 2003 was some 20% lower among high school students than in 1996. In Ontario it was some 25% less than in 1997. For 2003, a decline in the use of amphetamines (in general, as well as for methamphetamine) in the USA was reported among 8th, 10th and 12th graders. Methamphetamine use among high-school students declined for the fourth year in a row.

Fig. 180: Primary methamphetamine/amphetamine admission rates in the USA by State per 100,000 population aged 12 and above



Source: SAMHSA, *Treatment Episode Data Set (TEDS), 1992-2001*, December 2003.

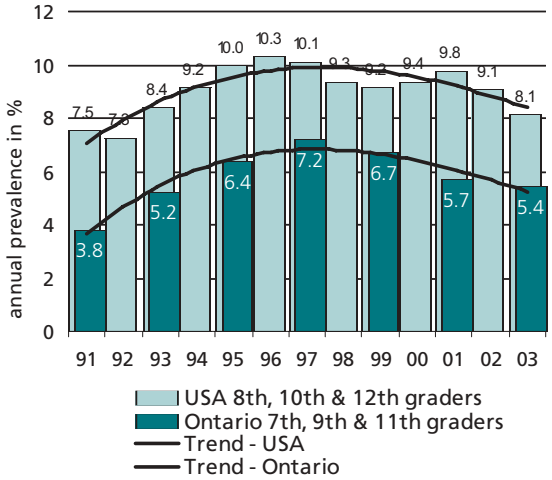
Fig. 181: Amphetamines abuse related treatment admissions in the USA



Source: Substance Abuse and Mental Health Services Administration, *Treatment Episode Data Set (TEDS) 1992-2002* , December 2003.

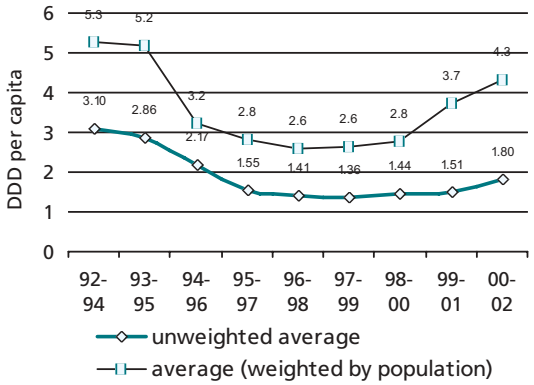
A basically stable level of amphetamines use was reported from Mexico. In both 1998 and 2002, 0.1% of the population used amphetamines. In Mexico, slightly more than 90% of all amphetamines use takes place in urban areas and - in contrast to other drugs - most amphetamines are used by women (close to 60%).

Fig. 182: Annual prevalence of amphetamines use in the USA and Ontario (Canada) among high-school students



Sources: Centre for Addiction and Mental Health, *Drug Use Among Ontario Students, 2003* and NIDA, *Monitoring the Future 2003*.

Fig. 183: Average per capita consumption of licit stimulants in Latin America* in defined daily doses (DDD) per capita



* average is based on information from 14 countries

Source: INCB, *2003 Psychotropic Substances*, New York 2004.

and some increase reported from South America …

In contrast to overall stable trends in North America, some increases in amphetamine use were reported in 2002 from countries in the southern cone of South America: Argentina, Chile and Paraguay. In Brazil, the largest South American country, the annual prevalence of the use of amphetamines amounted to 0.3% of the general population (age 12 and above) in 2001. This was slightly lower than in Chile (0.4% in 2000) and lower than in Argentina (0.7% in 1999).

Clandestine manufacture of amphetamines - sofar - has only played a minor role in this region. Only small amounts of amphetamines have been seized, with no reports of ephedrine, pseudo-ephedrine or P-2-P seized, and few reports of detected laboratories (the first officially reported dismantling of an amphetamine producing laboratory to UNODC concerned Chile in 2002). It can be assumed, therefore, that most of the synthetic stimulants used in the countries of South America remain pharmaceutical preparations diverted from licit channels (often marketed as anorectics or as medication to treat Attention Deficit Disorder (ADD)). The calculated per capita consumption of licit stimulants, after having declined strongly in the early 1990s, stabilized in the mid 1990s and has shown an upward trend over the last few years.

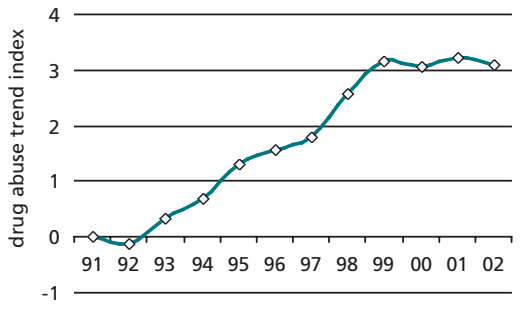
EUROPE

Stabilization of amphetamine consumption in Western Europe

Following massive increases in the consumption of amphetamines (mainly amphetamine) in the 1990s, the overall trend for Western Europe as a whole was basically stable over the 2000-2002 period. In 2002 this was the net result of declines reported from the UK and Ireland, stable trends reported from Sweden, France, Netherlands, Italy, Spain and Portugal and increases reported from Germany (though no further increases were observed in 2003), Austria and Denmark.

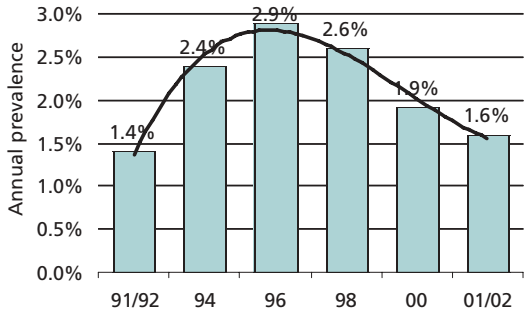
The most impressive decline in the use of amphetamine over the last few years was reported from the UK, Europe's largest amphetamine market. Annual prevalence of amphetamine use - after having increased strongly in the early 1990s - fell from 2.9% in 1996 to 1.6% in 2002, according to the British Crime Survey data. Similarly, the National Health & Lifestyle Surveys, conducted in the Ireland showed a strong decline in annual prevalence rates of amphetamine use from 2.6% in 1998 to 1.6% in 2002.

Fig. 184: Amphetamines consumption trend in Western Europe: based on national experts' perceptions



Source: UNODC, Annual Reports Questionnaire Data.

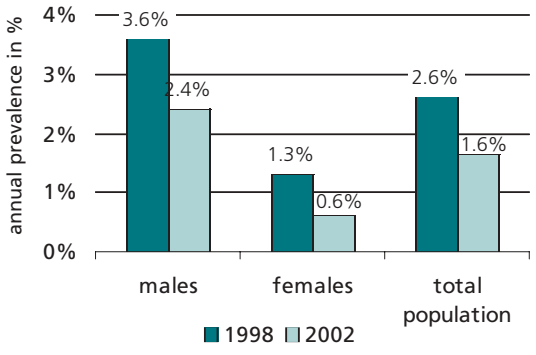
Fig. 185: United Kingdom, Amphetamine abuse among the population age 16-59



Source: Home Office, *British Crime Surveys 2001/02* and previous years.

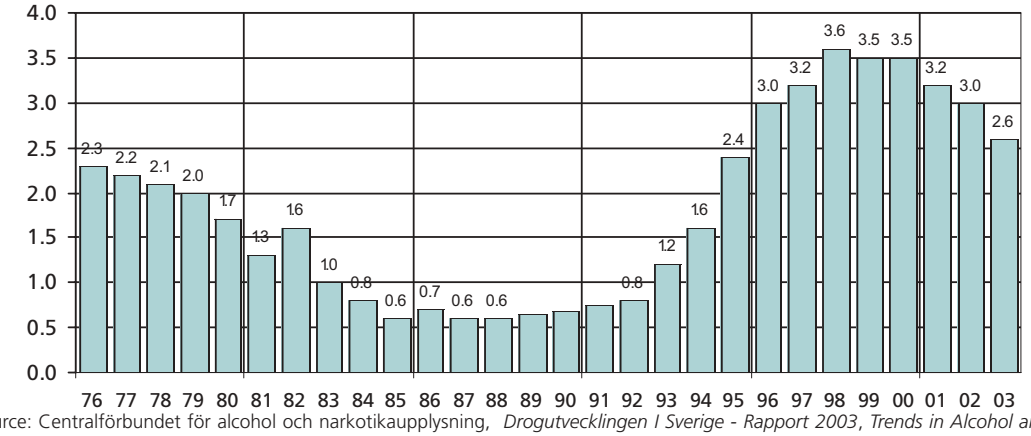
In Sweden, one of the first countries in Europe affected by a serious amphetamine epidemic, surveys undertaken among military recruits found declining levels of amphetamine use in the 1970s and in the 1980s. This was followed by strong increases in the early 1990s, which reached a peak in 1998. Since then the trend has been towards stabilization and - over the last few years - decline. Preliminary data for 2003 suggest that the lowest level since 1996 was reached. A general population survey (age 15-75) conducted in 2000 showed an annual prevalence of amphetamine use of less than 0.5%.

Fig. 186: Ireland: Amphetamine abuse among the general population age 18 and above



Source: Centre for Health Promotion Studies, *The National Health & Lifestyle Surveys*, April 2003 (see also note in Vol. II Statistics, Chapter 6, Section 6.1.)

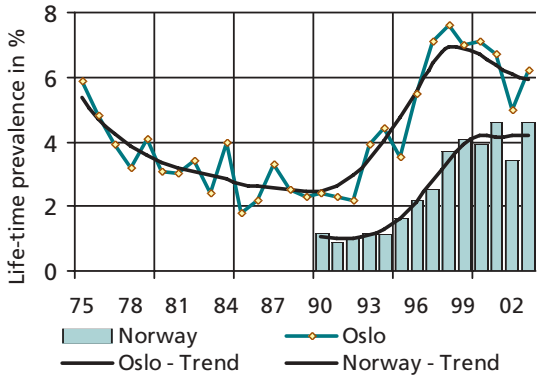
Fig. 187: Life-time prevalence of amphetamine use among military recruits in Sweden (1976-2003)



Source: Centralförbundet för alcohol och narkotikaupplysning, *Drogutvecklingen I Sverige - Rapport 2003*, *Trends in Alcohol and other Drugs in Sweden*, Report 2003 .

Trends in amphetamine use in Norway, as reflected in annual youth surveys conducted since the late 1960s, have been similar to those observed in Sweden. Following declines in the second half of the 1970s and the 1980s, amphetamine use increased again in the 1990s. Since the late 1990s prevalence rates have been falling in Oslo and since 2001 they have basically stabilized in Norway (though in 2003 they were higher than in the previous year). The overall levels of amphetamine use are, however, higher in Norway (1.2% in 1999 among the general population, age 15-64) than in Sweden.

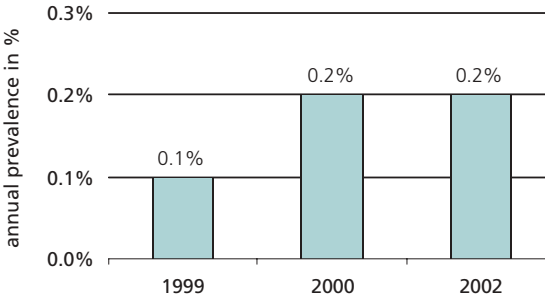
Fig. 188: Norway, Amphetamine use among youth (age 15-20)



Source: Statens institutt for rusmiddelforskning, *Alcohol and Drugs in Norway 2003*.

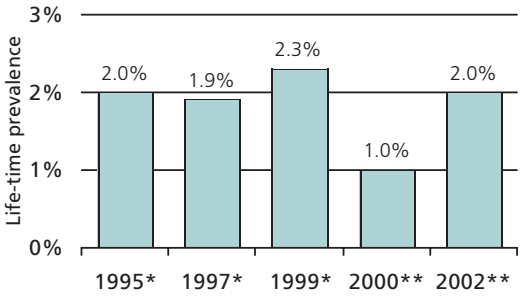
In France, general population survey data showed an increase in the 1990s, but a stabilization in recent years. Annual prevalence of amphetamine use among the general population (age 15-64) was - as reported to UNODC - 0.2% of the population age 15-64 in 2002, the same level as in 2000. The number of 'interpellations' (reports/arrests by the police) for amphetamine use declined between 1998 and 2002. Following increases in the early 1990s, investigations among youth showed a relatively stable level of amphetamine use over the 1995-2002 period (except for low levels reported in one study in 2000).

Fig. 189: France, annual prevalence of amphetamine abuse among the general population



Sources: EMDDA, Data Library and UNODC, Annual Reports Questionnaire Data.

Fig. 190: France, Life-time prevalence of amphetamine use among youth

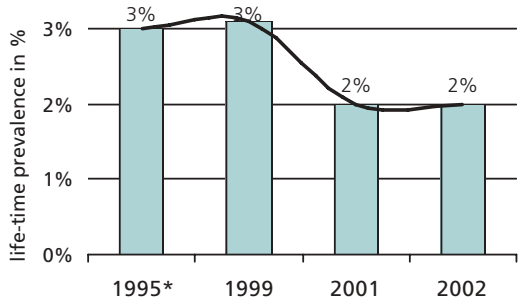


* age 15/16 based on ESPAD; ** age 17 based on ESCAPAD

Sources: ESPAD 1995 and 1999; EMCDDA Data Library and OFDT, *Drogues et Adolescence* - ESCAPAD 2002, Sept. 2003.

In Italy, life-time prevalence of amphetamine use among those aged 15-19 showed increases in the early 1990s. It declined over the 1999-2001 period. Between 2001 and 2002 the reported levels remained unchanged. Similarly, data on drug use amongst those in military service, showed an increase in amphetamine use until 1998 and a decline/stabilization thereafter. With regard to people in treatment for amphetamine abuse, increases (from very low levels) were noticed until 1996. Between 1992 and 2002, the number of people undergoing treatment for amphetamine abuse declined. Practically no change was observed between 2001 and 2002. Overall, 0.1% of the population age 15-44 was found to use amphetamine in Italy in 2002.

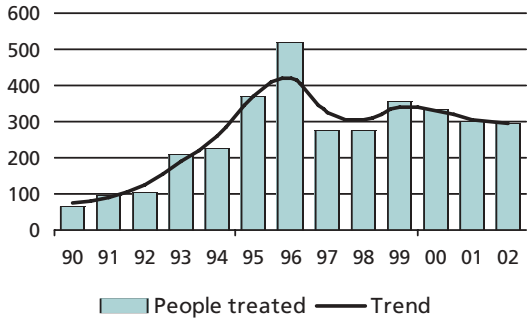
Fig. 191: Italy: Life-time prevalence of amphetamine abuse among youth, (age 15-19)



* 1995 data refer to those age 15-16, rounded to a

Sources: Council of Europe, 1999 and 1995 ESPAD reports and Ministerio del Lavoro e della Politiche Sociali, *Relazione Annuale al Parlamento Sullo Stato Delle Tossicodipendenze in Italia 2002* and previous years.

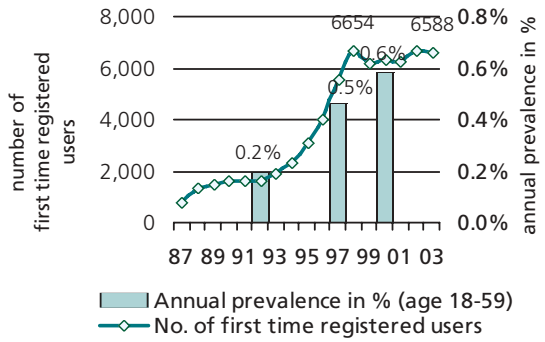
Fig. 192: Italy: Number of people treated for amphetamine abuse



Source: Ministerio del Lavoro e della Politiche Sociali, *Relazione Annuale al Parlamento Sullo Stato Delle Tossicodipendenze in Italia 2002* and previous years.

In Germany, the annual prevalence of amphetamine use increased strongly in the 1990s. The number of first time registered amphetamine users peaked in 1998, and remained largely stable over the 1998-2003 period. Hardly any change was observed between 2002 and 2003. The highest per capita arrests for the possession/consumption of amphetamines have been reported from some of the states close to the Benelux countries (Rheinland-Pfalz and Saarland) and towards the east, by Bavaria, Thüringen and Sachsen, i.e. states close to the Czech Republic. The main synthetic stimulant found in Germany continues to be amphetamine (95%); close to 5% of all stimulants related violations against the German narcotics law concerned methamphetamine in 2003. Methamphetamine use is concentrated (80%) in the two states which border the Czech Republic, Bavaria and Sachsen.

Fig. 193: Germany: Amphetamine use (1987-2003)



Sources: UNODC, Annual Reports Questionnaire Data, Bundesministerium für Gesundheit, *Repräsentativerhebung 1997*, L. Kraus and R. Augustin, Repräsentativerhebung zum Gebrauch psychoaktiver Substanzen bei Erwachsenen in Deutschland 2000, Sucht, Sonderheft 1, Sept. 2001, and Bundeskriminalamt, Rauschgiftjahresbericht 2002 and BKA, Jahreskurzlage Rauschgift 2003.

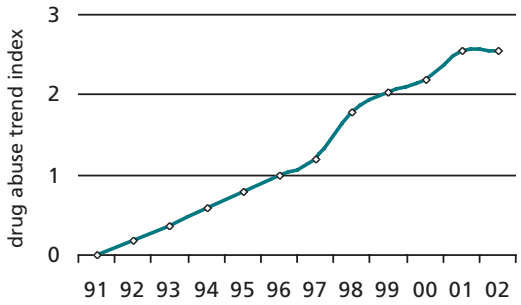
Amphetamines consumption in Eastern Europe stabilized in 2002

Following years of reported increases, countries of Eastern Europe reported - for the first time - largely stable levels of amphetamine consumption in 2002. Out of 13 East European countries, 8 countries reported a stable level of amphetamine use in 2002 (up from 5 countries in 2001 and 2 in 2000). No Eastern European country reported a strong increase in 2002. Most of the increase in amphetamine use in 2002 was concentrated in the Balkan region. Trends among the new EU countries were mostly stable.

Poland, the main illicit amphetamine producing country of Eastern Europe and the largest market overall in

the region, reported some decline of local amphetamine consumption in 2002. Annual prevalence of amphetamine use among the general population (age 16 and above) amounted to 0.6% in Poland in 2002, equivalent to 0.7% among the general population age 15-64. The prevalence rate was thus less than methamphetamine use in the neighbouring Czech Republic (1.1% among the general population in 2002) or use of amphetamine in Estonia (1% in 1998). It was, however, higher than in neighbouring Slovakia (0.2% in 2002), and higher than amphetamine use in Hungary or Slovenia (life-time prevalence of 1.7% or 2% among 15-64 year olds in Poland, versus 1.6% in Hungary and 0.4% among 15-64 year olds in Slovenia). As compared to countries in Western Europe annual prevalence of amphetamine use in Poland (0.7%) was less than in the UK (1.6% in 2002), Ireland (1.6% in 2002), Denmark (1.3% in 2000), Spain (1.2% in 2001) or Norway (1.2% in 1999). It was similar to the levels reported from Germany (0.6% in 2000) and the Netherlands (0.6% in 2001) and higher than amphetamine use in Finland (0.5%), Sweden (<0.5% in 2000), France (0.2% in 2002), Italy (0.1% in 2001), Greece (0.1% in 1998) or Portugal (0.1% in 2001).

Fig. 194: Amphetamines consumption trend in Eastern Europe: based on national experts' perceptions



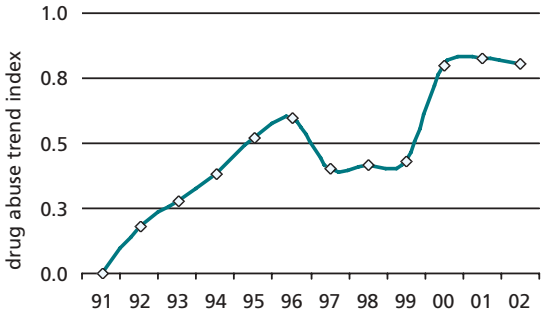
Source: UNODC, Annual Reports Questionnaire Data.

AFRICA

Stabilization of amphetamines use in Africa in 2002 …

In Africa there appears to have been a stabilization in the use of amphetamines in 2002 with five African countries reporting an increase, six a stabilization and four a decline. Though consumption of various amphetamine-type stimulants is widespread in Africa, relatively few countries reported consumption trends regarding amphetamines in 2002. This could be because the use of these substances is a matter of only secondary importance, for the authorities in several African countries, and/or that the control mechanisms introduced at the international level over the last few years to reduce diversion from licit channels to illegal markets are showing positive effects. The main source of the various amphetamine-type stimulants in Africa are parallel markets, where legal medicines are diverted and sold without prescription. The only country where clandestine manufacture of amphetamine-type stimulants has repeatedly been reported in recent years, is the Republic of South Africa.

Fig. 195: Amphetamines consumption trend in Africa: based on national experts' perceptions



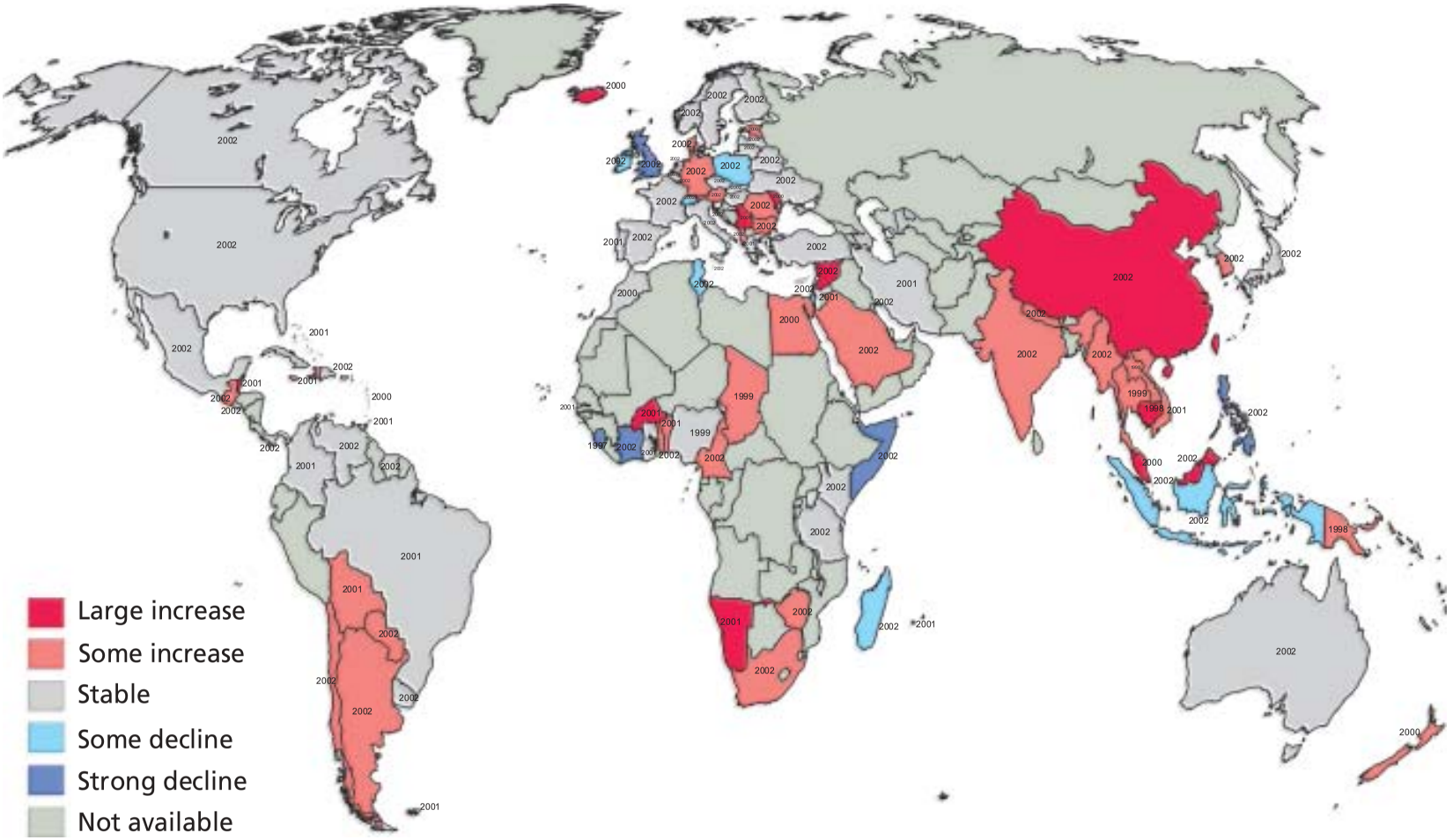
Source: UNODC, Annual Reports Questionnaire Data.

… despite increases in Southern Africa

Amphetamine use in Southern Africa appears to have increased in 2002. Though use of amphetamines is hardly noticeable among the general population and treatment demand for the use of amphetamines is still very low, use among youth was found to be already rather high. (The life-time prevalence of 5% among youth (mean age 17 years) in Thukela district of Kwa Zulu-Natal Province, South Africa in 2002 is higher than the corresponding rates for cocaine (3.7%) or heroin (2.7%)). There have been also reports regarding the emergence of crystal methamphetamine ("ice") in Cape Town and of an increasing availability of methcathinone (locally known as "CAT") in Cape Town and Gauteng (Johannesburg, Pretoria) in 2002.

In contrast, most of the countries in Eastern Africa and Northern Africa saw amphetamine use stabilize or decline. In Western Africa the situation was mixed.

Map 25: Changes in abuse of amphetamine-type stimulants (excluding ecstasy), 2002 (or latest year available)



Sources: UNODC Annual Reports Questionnaires data, UNODC (Regional Centre Bangkok) Epidemiology Trends in Drug Trends in Asia (Findings of the Asian Multicity Epidemiology Workgroup, National Household Surveys submitted to UNODC, United States Department of State (Bureau for International Narcotics and Law Enforcement Affairs) International Narcotics Control Strategy Report;Bundeskriminalamt (BKA) and other Law Enforcement Reports.

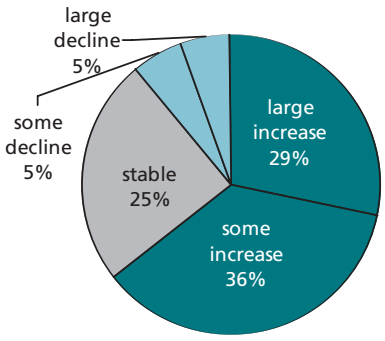
2.4.3.2.2. Ecstasy

Ecstasy use continues rising, but at a much lower pace than in previous years

Global ecstasy consumption has increased consistently over the last decade. Ecstasy has been treated separate from amphetamines only since the revised Annual Reports Questionnaire was introduced in 2001. Any trend data analysis prior to this year is thus potentially misleading.

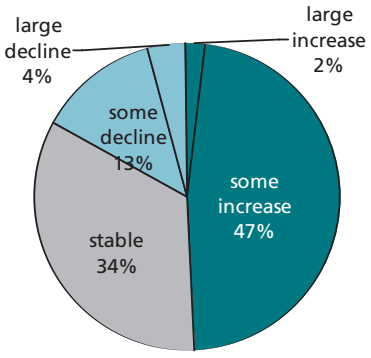
The following review will concentrate on trend data received for the years 2001 and 2002. In 2001, two-thirds of the countries reporting ecstasy trends (n = 56) reported an increase in ecstasy use. In 2002 half of the countries reporting ecstasy trends (n = 53) perceived increases in consumption. In parallel, the countries reporting declines rose from 10% in 2001 to 17% in 2002.

Fig. 196: Global ecstasy consumption trends, 2001 (n = 56)



Source: UNODC, Annual Reports Questionnaire Data.

Fig. 197: Global ecstasy consumption trends, 2002 (n = 53)



Source: UNODC, Annual Reports Questionnaire Data.

Global ecstasy consumption thus appears to have continued rising in 2002, though at a significantly slower pace than in 2001. The ongoing popularity and consequent spread of ecstasy use in many developing countries continued. In several of the largest ecstasy markets of Europe and North America, where massive increases were experienced in the 1990s, ecstasy consumption stabilized or showed signs decline.

EUROPE

Following years of massive increases, several countries saw signs of stabilization in 2002/2003

In contrast to previous years when practically all countries reported strong increases, 10 out of 15 West European countries reported a stabilization of ecstasy consumption trends in 2002, suggesting that demand and supply reduction interventions, undertaken over the last few years, are starting to show positive results. Only 4 countries (UK, Ireland, Spain and Denmark) continued to report an increase. In Eastern Europe 5 out of 11 countries reported that ecstasy use remained stable or declined, while 6 countries reported ongoing increases (most of them in south-eastern Europe).

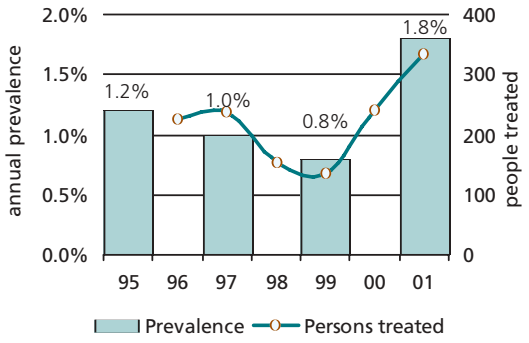
Within Europe, Western Europe was the first to be affected by rapidly rising levels of ecstasy consumption. Beginning in Spain and the UK (late 1980s) consumption then spread to the rest of the continent. In the second half of the 1990s, overall ecstasy use continued to increase. This was reflected in the ESPAD (European School Survey Project on Alcohol and Other Drugs) studies, which were conducted among 15 to 16 year olds in some 30 countries on behalf of the Council of Europe. The overall increase in the second half of the 1990s was, however, mainly due to rapidly growing levels in the East European countries, notably Latvia, Lithuania, the Czech Republic, Slovenia, Estonia and Hungary. In contrast, a number of West European countries, including the UK, Ireland, the Netherlands, Italy, Iceland and Cyprus reported falling levels of ecstasy use over the 1995-1999 period.

In Spain, annual prevalence of ecstasy use increased until the mid 1990s, declined between 1995 and 1999 but rose again between 1999 and 2001 from 0.8% to 1.8% of the population age 15-64, one of the highest levels in Europe. The number of people in treatment for ecstasy abuse exhibited a similar pattern. The proportion of emergency room visits due to ecstasy abuse rose from 2.4% of all drug related emergency room visits in 1999 to 4.4% in 2001.

National surveys on illicit drug use conducted in the Netherlands revealed a significant increase in the annual prevalence of ecstasy use between 1997 and 2001. During this period ecstasy use almost doubled, from 0.8% to 1.5% of the general population (age 15-64). In Amsterdam, prevalence of ecstasy use rose 5-fold over the 1990-2001 period. The Dutch authorities, however, did not observe any further rise in 2002.

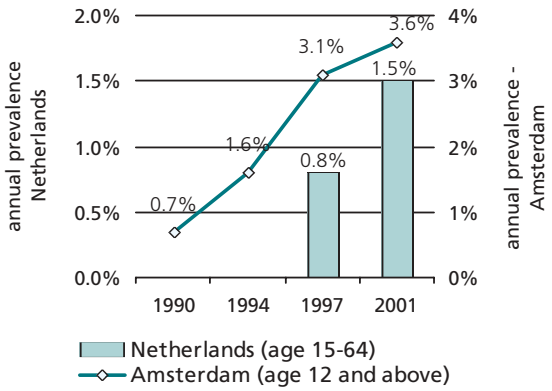
General population surveys in the UK revealed an upward trend over the 1992-2002 period, including over the 1998-2002 period. Annual prevalence of ecstasy use of the population age 16-59 was found to be 2.2% in England and Wales in 2002, up from 1.6% in 1998. In 2003, however, the ecstasy prevalence rate declined slightly to 2%. Similar kind of stabilizations/declines also appear to have taken place in some other European countries.

Fig. 198: Spain: annual prevalence and persons treated for ecstasy abuse



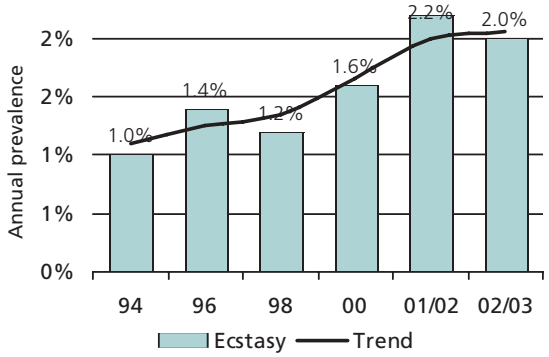
Source: Ministerio del Interior, *Informe No 6, Observatorio Español sobre Drogas*, Noviembre 2003.

Fig. 199: Netherlands: annual prevalence of ecstasy use among the general population



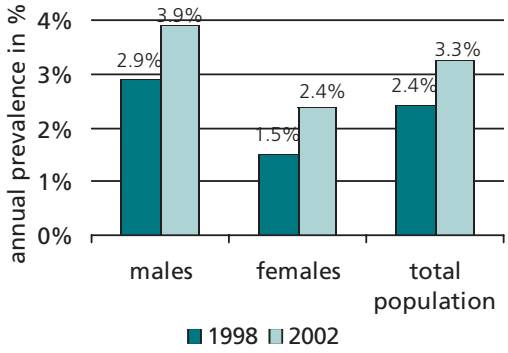
Sources: CEDRO, *Licit and illicit drugabuse in the Netherlands 2001*, Amsterdam 2002 and CEDRO, *Licit and illicit drugabuse in Amsterdam III. Developments in drugabuse 1987 - 1997*, Amsterdam 1998; EMCDDA Data Library.

Fig. 200: England & Wales: Ecstasy use among the general population age 16-59, 1994-2003



Source: Home Office, *British Crime Surveys 2002/03* and previous years.

Fig. 201: Ireland: ecstasy use among the general population age 18 and above



Sources: Centre for Health Promotion Studies, *The National Health & Lifestyle Surveys, April 2003*.

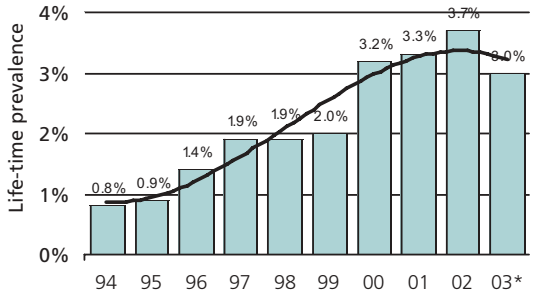
The National Health & Lifestyle Surveys conducted in Ireland (based on a mail survey) showed a clear increase in the annual prevalence of ecstasy use from 2.4% in 1998 to 3.3% in 2002. A peak in ecstasy use, however, may have been reached. A household survey[ao], conducted in Ireland and in Northern Ireland (through face-to-face interviews) towards the end of 2002 and

ao) National Advisory Committee on Drugs (NACD) and the Drug and Alcohol Information and Research Unit (DAIRU) , *Bulletin 1 - Drug Use in Ireland & Northern Ireland, first Results from the 2002/2003 Drug Prevalence Survey*, October 2003.

early 2003, revealed a significantly lower annual prevalence rate of 1.1% among the general population (age 15-64) in the Republic of Ireland (about half the level reported from the UK). Ecstasy use in Northern Ireland affected 1.7% of the population age 15-64. The manner in which methodological differences (face-face-to-face interview versus mail questionnaire) and actual changes in prevalence may respectively have influenced the results needs to be further examined.

Data for Sweden showed an upward trend in ecstasy use until 2002. In 2003, however, ecstasy use (based on life-time prevalence of ATS use among military recruits) fell to its lowest level since 1999. Annual prevalence among the general population was less than 0.5% in 2000.

Fig. 202: Life-time prevalence of ecstasy among military recruits in Sweden (1994-2003)



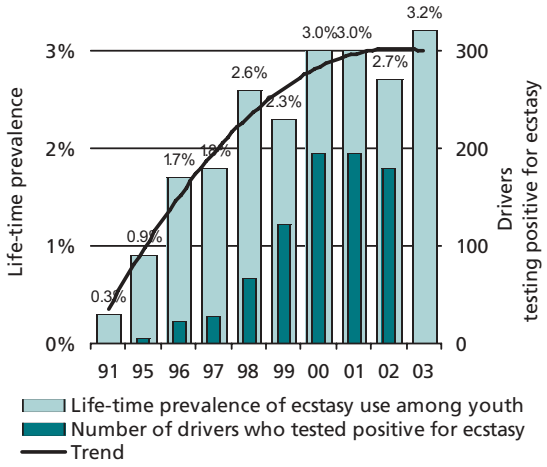
* preliminary data.

Source: Centralförbundet för alcohol och narkotikaupply-sning, Drogutvecklingen I Sverige - Rapport 2003, *Trends in Alcohol and other Drugs in Sweden*, Report 2003.

In Norway the annual youth surveys revealed massive increases of ecstasy use in the 1990s, consistent with trends in the rest of Europe. In 1999 annual prevalence of ecstasy use was found to affect 0.7% of the population (age 15-64). As in Sweden, increases in the 1990s were followed by a stabilization in the first years of the 21st century. Youth surveys as well as test results from people driving under the influence of drugs revealed such a pattern. In 2003, however, the prevalence rates for ecstasy use increased again and were slightly higher than in 2000 or 2001.

After having increased strongly in the first half of the 1990s, general population and youth surveys in Germany revealed a small decline in ecstasy use between 1997 and 2000/2001. Annual prevalence of ecstasy use in the general population (age 18-59) fell from 0.8% in 1997 to 0.6% in 2000. This was the result of two

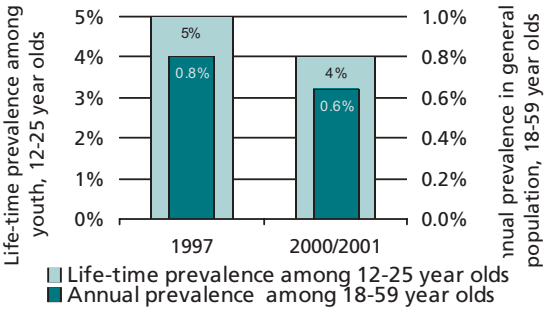
Fig. 203: Norway: Life-time prevalence of ecstasy use among youth (age 15-20), 1994-2003



Source: Statens institutt for rusmiddelforskning, *Alcohol and Drugs in Norway 2003*.

opposing trends: ecstasy use declined in the 'old provinces' (former West-Germany), but increased in the 'new provinces' (former East Germany). It is the only drug which is already more widespread in the new provinces than in the old. The number of persons registered for ecstasy use rose in the 1990s, but fell by 22% in 2002 and by 29% in 2003, reaching the lowest levels since 1999.

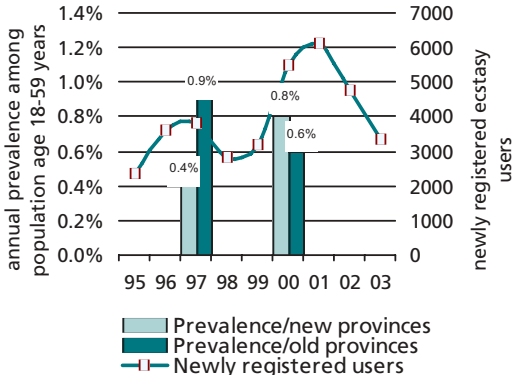
Fig. 204: Germany: Ecstasy use among youth and in the general population, 1997 and 2000/2001*



* the latest general population survey was conducted May-October 2000; the latest youth surveywas conducted in January 2001.

Sources: Bundesministerium für Gesundheit, Repräsentativerhebung 1995, 1997 und 2000; Bundeszentrale für gesundheitliche Aufklärung, Die Drogenaffinität Jugendlicher in der Bundesrepublik Deutschland 2001.

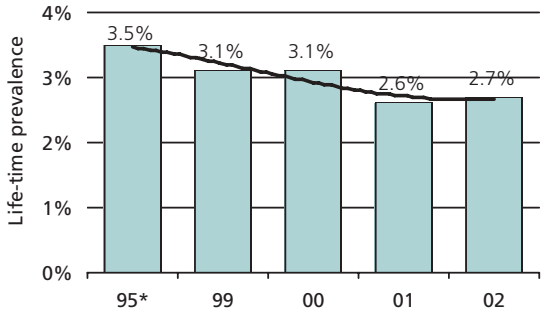
Fig. 205: Germany: newly registered ecstasy users and annual prevalence of ecstasy use in population age 18-59



Sources: Bundesministerium für Gesundheit, *Repräsentativerhebung 1997* und 2000; Bundeskriminalamt, *Rauschgiftjahresbericht 2002*, June 2003; BKA *Jahreskurzlage Rauschgift 2003*.

Similar trends were also reported from Italy. Ecstasy use showed strong increases in the early 1990s, but appears to have levelled off in subsequent years, as shown by data of the Italian ESPAD school-surveys. A national household survey conducted in 2001 found the overall level of ecstasy use to be 0.2% of the general population (age 15-44), less than in most other European countries.

Fig. 206: Italy: life-time prevalence of ecstasy use among students, age 14-20

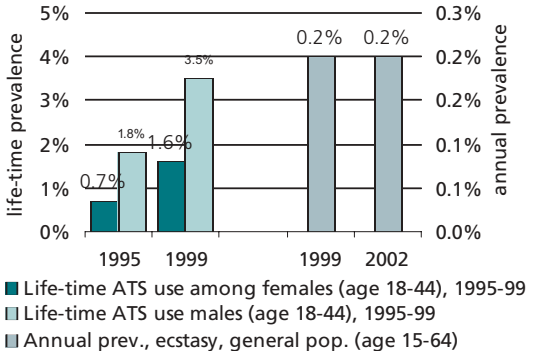


* data for 1995 refer to students age 15-16

Source: Council of Europe, *The 1995 ESPAD Report*, Stockholm 1997 and Ministerio del Lavoro e della Politiche Sociali, *Relazione Annuale al Parlamento Sullo Stato Delle Tossicodipendenze in Italia 2002* and previous years.

Surveys undertaken in France indicated strong increases in ecstasy use in the 1990s basically stabilizing among the general population (age 15-64) over the 1999-2002 period (0.2% according to data provided to UNODC). (There are, however, indications that ecstasy use among young adults continued rising).

Fig. 207: France: ecstasy use



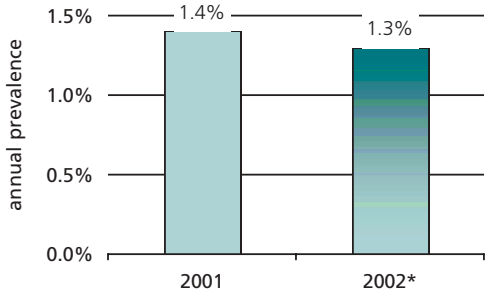
Sources: UNODC, Annual Reports Questionnairre Data and OFDT, *France Drug Situation 2001*.

AMERICAS

Following years of massive increase, declines were reported in North America for 2002 and 2003

Ecstasy use in the Americas was first reported in the early 1980s in the USA. The national control of MDMA began in 1985 and was followed by international control a year later. The spread of ecstasy was subsequently halted for several years. The next wave of expanding ecstasy use was only identified in the 1990s, mainly among youth. The increase of ecstasy use in the 1990s is reflected - *inter alia* - in the tripling of life-time prevalence rates among the general population between 1994 (1.3%) and 2001 (3.6%). The upward trend, however, did not continue in subsequent years. Annual prevalence of ecstasy use, first recorded in 2001, declined from 1.4% in 2001 to 1.3% in 2002. Given methodological changes which reduced under-reporting and thus led to higher numbers for the year 2002, the actual decline between 2001 and 2002 was probably more important than indicated by existing data. During that period ecstasy use among the general population continued to be less widespread than use of cocaine (2.5%). It was about the same level as the consumption of stimulants (1.4%), and more widespread than use of LSD (0.4%) or heroin (0.2%). Despite the decline of ecstasy in 2002, ecstasy use is more widespread in the USA than in Western Europe. In Europe levels surpassing those of the USA were only reported from the UK, Spain and the Netherlands.

Fig. 208: USA: Ecstasy use among the general population, age 12 and above



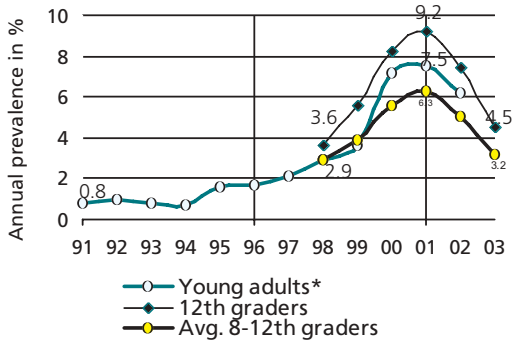
* data are not directly comparable. due to changes in methodology.

Source: SAMHSA, Results from the 2002 *National Survey on Drug Use and Health 2002* and previous year.

The Monitoring the Future surveys among young adults (age 18-30) found an almost tenfold increase in the annual prevalence rates of ecstasy use between 1991 (0.8%) and 2001 (7.5%). In 2002, however annual prevalence declined, and a further decline can be expected for 2003. The average annual prevalence of ecstasy use among high-school students (8th, 10th and 12th grades)-- which had doubled (from 2.9% to 6.3%) between 1998 and 2001-- fell to 5.1% in 2002 and to 3.2% in 2003, the lowest such rate since 1998. Thus, between 2001 and 2003 ecstasy use among high-school students fell by almost 50% (by more than 50% among 8th and 10th graders and by 40% among 12th graders).

The strong decline in the prevalence of ecstasy use over the 2001-2003 period took place in parallel to increases in the perceived harmfulness of ecstasy (trying MDMA once or twice is a great risk) and reduced availability ('easy or fairly easy to get'). It is worth noting that prevention activities in the second half of the 1990s helped to raise the public's perception of the risk associated with ecstasy experimentation. Unfortunately, a strong increase in availability offset all progress made in prevention efforts over the 1998-2001 period. Once availability stopped rising, the prevention efforts succeeded in lowering ecstasy consumption. This was the case over the 2001-2003 period.

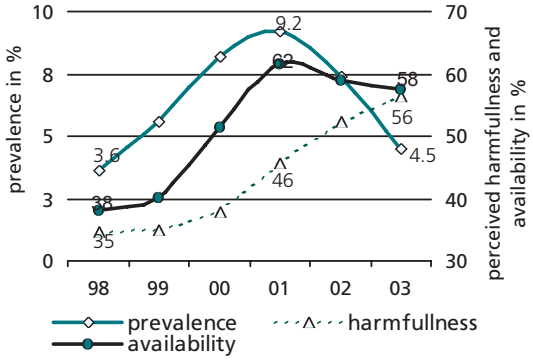
Fig. 209: USA: Ecstasy use among high-school students and young adults*, 1991-2003



* young adults: age 18-30

Sources: NIDA, *Monitoring the Future, Volume II: College Students & Young Adults, 2002* and NIDA, *The Monitoring the Future National Survey Results on Adolescent Drug abuse: Overview of Key Findings, 2003*.

Fig. 210: USA: perceived availability, harmfullness and prevalence of ecstasy among 12th graders



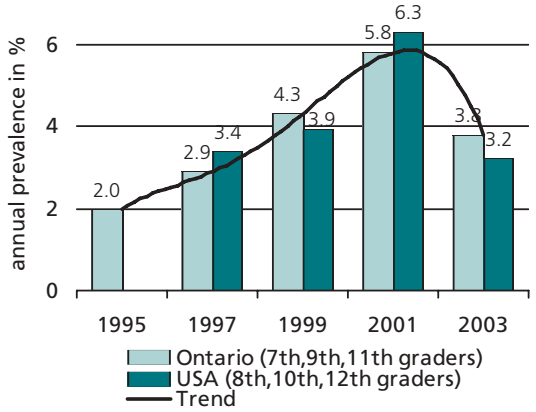
Source: NIDA, *Monitoring the Future*.

The Monitoring the Future survey results also revealed that ecstasy use is still more widespread in the north-eastern[ap] parts of the United States (more than a third higher than the national average in 2002), possibly reflecting closer links with Europe where most of the ecstasy originates. Another finding was that ecstasy users come from the middle class, in contrast to, for instance, crack-cocaine, heroin or crystal methamphetamine users who usually are from poorer population segments (measured in terms of the parental education level of high school students).

ap) North-East: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey and Pennsylvania.

Trends reported from Ontario, Canada showed almost an identical pattern as that observed in the USA. Following a tripling of ecstasy use among high-school students over the 1995-2001 period, ecstasy use fell by a third over the 2001-2003 period, the strongest decline for any substance (from 5.8% to 3.8%). Similar to the USA, the perceived availability of ecstasy in Ontario declined between 2001 and 2003 (from 27% to 20% of the 7th -11th graders), while the perceived risk of using ecstasy increased (from 33% to 40% of the 7th -11th graders). The use of ecstasy among high-school students in Ontario (3.2%) is now less widespread than cocaine (5.1%) or methamphetamine use (3.6%) but more widespread than LSD (2.9%) or heroin (1.4%). In 2000 (and thus prior to falling ecstasy use levels in Canada), ecstasy use among the general population of Ontario was found to affect 1.8% of those age 18 and above, more than in the USA or in Western Europe.

Fig. 211: Ecstasy use among high-school students in Ontario (Canada) and in the USA



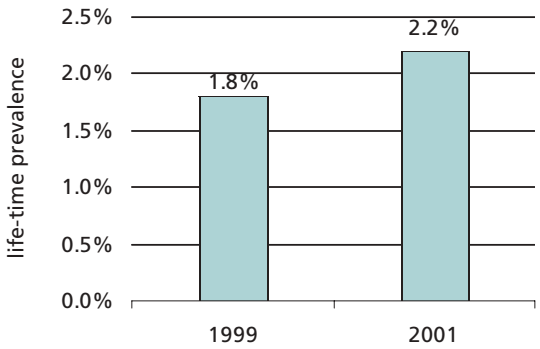
Source: Centre for Addiction & Mental Health, *Drug Use Among Ontario Students 1977-2003* and NIDA, *Monitoring the Future*, 2003.

While ecstasy use in Southern America continues to expand, though at a lower pace ...

Out of nine countries reporting on ecstasy trends in southern America (including the Caribbean and Central America) in 2002, five countries (Colombia, Guatemala, El Salvador as well as the Dominican Republic and Trinidad & Tobago) reported some increase and four countries reported a stable level of ecstasy use. This suggests that the expansion of ecstasy in the region continued, though at a lower pace than a year earlier. In 2001, 13 out of 19 countries reported increases in ecstasy use (including seven countries reporting strong increases) and five countries reported a stable level.

Ecstasy was almost unknown in most Latin American countries until the mid 1990s. By 1999, however, studies in Colombia already found a life-time rate of ecstasy use among youth (age 10-24) of 1.8%. A further rise to 2.2% took place by the year 2001. The consumption of ecstasy is thus still less widespread than cocaine (4.5%) but more widespread than basuco (1.2%), amphetamines (1.1%) or heroin (1.1%). Above average levels of ecstasy use were reported, *inter alia*, from Medellin and Cali while ecstasy use in Bogota was close to the national average. Prevalence rates were found to be higher among university students than among high-school students, which seems to reflect the status of ecstasy in Colombia and other Latin American countries as a drug for youth from rather well-off families. Most of the ecstasy is imported from Europe.

Fig. 212: Colombia: Ecstasy use among youth (age 10-24)



Sources: Programa Presidencial Rumbos, *Sondeo Nacional del Consumo de Drogas en Jovenes, 1999-2000* and Programa Presidencial Rumbos, *Encuesta Nacional sobre consumo de sustancias psicoactivas en jóvenes de 10 a 24 años, 2001*.

A number of high-school surveys, conducted in 2001/2002 as part of the Inter-American Drug Use Data System (SIDUC) confirmed that ecstasy use is now encountered throughout the region, though in general, it is still less widespread than other drugs. Relatively high levels - close to those reported from Colombia - were encountered in countries in the vicinity of Colombia, i.e. Ecuador (1.9%), followed by Guatemala (1.6%), Venezuela (1.5%) and Panama (1.4%). Relatively low levels, in contrast, are still found in Paraguay and Uruguay. Use of ecstasy among the general population, however, is still low. One survey conducted in Chile in 2000 reported a life-time prevalence of ecstasy use of 0.2% among the general population.

Table 15: Life-time prevalence of ecstasy and other drug use among high-school students in selected Latin American countries, 2001/2002 (age 12-18)

	Ecstasy	Cocaine	Inhalants	Stimulants	Maijuana	Any illicit drug
Ecuador	1.9%	2.4%	2.6%	3.5%	8.6%	12.3%
Guatemala	1.6%	3.2%	2.4%	5.3%	5.7%	9.8%
Venezuela	1.5%	1.0%	2.7%	6.4%	1.0%	6.0%
Panama	1.4%	0.8%	2.2%	5.9%	6.9%	9.6%
Nicaragua	1.1%	2.7%	2.4%	10.4%	6.9%	11.2%
Uruguay	0.5%	2.7%	1.7%	6.2%	12.5%	13.5%
Paraguay	0.4%	1.6%	0.7%	5.9%	4.3%	5.6%
Unweighted average	**1.2%**	**2.1%**	**2.1%**	**6.2%**	**6.6%**	**9.7%**

Source: Organización de los Estados Americanos (OAS) , CICAD, *Resumen Estadistico sobre Drogas, Décima Edición, 2003*.

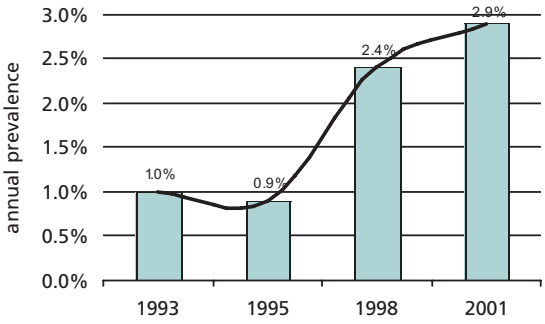
OCEANIA

Confronted with highest levels of ecstasy use worldwide, but rate of increase appears to be losing momentum

The highest levels of (admitted[aq]) ecstasy use worldwide, are found in the Oceania region. Australia had an annual prevalence rate of 3.4% of the population age 15-64 in 2001. (Some of the reported ecstasy use in Australia consists of methamphetamine / mixed ingredient tablets ('pseudo ecstasy'), sold as ecstasy. Consequently actual ecstasy use may be over-reported in Australia). In New Zealand in 2001, 3.4% of those age 14-45 used ecstasy in the previous twelve months, up from 1.5% in 1998 and 0.4% in 1990. Expressed as a percentage of the population age 15-64, the standard age range for international comparisons, ecstasy use affected 2.2% of the general population in 2001. Expressed as a proportion of the population age 14 and above (the scale used for surveys in neighbouring Australia), the rate would be 1.9%.

In Australia the 2001 national household survey revealed an annual prevalence rate of 2.9% among the general population age 14 and above (equivalent to 3.4% of those age 15-64), higher than the corresponding rates for the UK (2.2%) or Spain (1.9%) and more than twice the rate of ecstasy use reported from the USA (1.3% of the population age 12 and above in 2003). Over the 1995-2001 period ecstasy use tripled in Australia, from 0.9% to 2.9%. A further rise was reported by the authorities for the year 2002 (ARQ).

Fig. 213: Australia: Ecstasy use among the general population (age 14 and above), 1993-2001



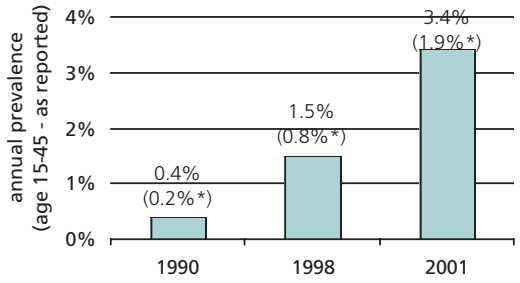
Source: Australian Institute of Health and Welfare (AIHW), *National Drug Strategy Household Survey 2001* and previous years.

Most of the increase, however, took place over the 1995-1998 period. Subsequently, the rate of increase has started to flatten. The "National Study of Party Drug Trends", conducted by the National Drug and Alcohol Research Centre in 2003, found that the availability of ecstasy remained largely 'stable' in Australia in 2003 (as reported by 64% of regular ecstasy users). These perceptions were also in line with the stability of ecstasy prices in 2003 (around Aus$35 in New South Wales), in contrast to the price declines reported over the 1997-2001 period (from Aus$50 to Aus$35 in New South Wales). The study also revealed that regular ecstasy users are increasingly inclined to experiment with other drugs as well, including cannabis and amphetamines (mainly

aq) The level of drug use shown in self-response household surveys (or school surveys) is not only a function of the actual level of drug use in a country but also of the readiness of drug users to admit their habit. The high levels of ecstasy use found in household surveys in Australia and New Zealand can be thus the result of high levels of ecstasy use and/or of a general climate in which ecstasy users (in contrast to other countries) are not afraid to openly admit their drug taking behaviour.

methamphetamine powder in Australia), as well as crystal methamphetamine, cocaine, ketamine, GHB, benzodiazepines, LSD etc. Poly-drug use has become the norm among regular ecstasy users (close to 90% of regular ecstasy users also experimented with other drugs). Regular ecstasy users tried, on average, about 9 drugs during their life-time (out of 19 drugs known to be used in Australia) and used more than 6 different drugs over the six months prior to the interviews [ar]. However, the study has also shown that, thus far, there have been relatively few regular users of other drugs among regular ecstasy users.

Fig. 214: New Zealand: Ecstasy use among the general population 1998-2001



* annual prevalence age 15 and baove; age group comparable with Australian studies.

Sources: APHRU, Drug Use in New Zealand - *Comparison surveys 1990 & 1998* and New Zealand Health Information Service, *New Zealand Drug Statistics*, Wellington 2001.

ASIA

Ongoing rise in 2002, but less dramatic than in previous years

Although still limited overall, ecstasy use in Asia has been growing rapidly in a number of countries of East and South-East Asia in recent years, notably in China, Hong-Kong, SAR of China, Thailand, Indonesia and Vietnam. Consumption has also been expanding in the Near East, notably in Israel and in the Lebanon.

Ongoing increases in ecstasy use were reported from Israel and from the Lebanon for the year 2002 and 2003. Over the last couple of years a number of criminal Israeli groups have specialized in the international ecstasy trade, shipping ecstasy from the Netherlands/Belgium to overseas markets (North America, Oceania etc). A knock on effect of this has been the expansion of the domestic market, mainly among youth. In Lebanon the ecstasy market is primarily geared towards high-income recreational users.

The strong increases of previous years reported from countries in East and South-East Asia, in contrast, did not continue in 2002/2003. Though authorities in China reported rising levels of ecstasy use, there were also reports of intensified efforts to crack down on local ecstasy laboratories and on dance halls and clubs where ecstasy was known to have been used. This appears to have had some positive consequences for neighbouring Hong Kong. Authorities in Hong Kong reported a large decrease of ecstasy use in 2002 - following years of increasing consumption. Declines in ecstasy use were also reported from Indonesia following the dismantling of a major ecstasy laboratory which had supplied local and regional markets.

Despite the impact that these successes in supply reduction have had on demand in 2002/2003, it seems to be too early to speak of a trend towards a sustained stabilization of ecstasy use in East and South-East Asia. As the market for ecstasy is far from saturated in this part of the world, a serious concern is that the past few years' upward trend in the use of ecstasy is likely to resume again shortly.

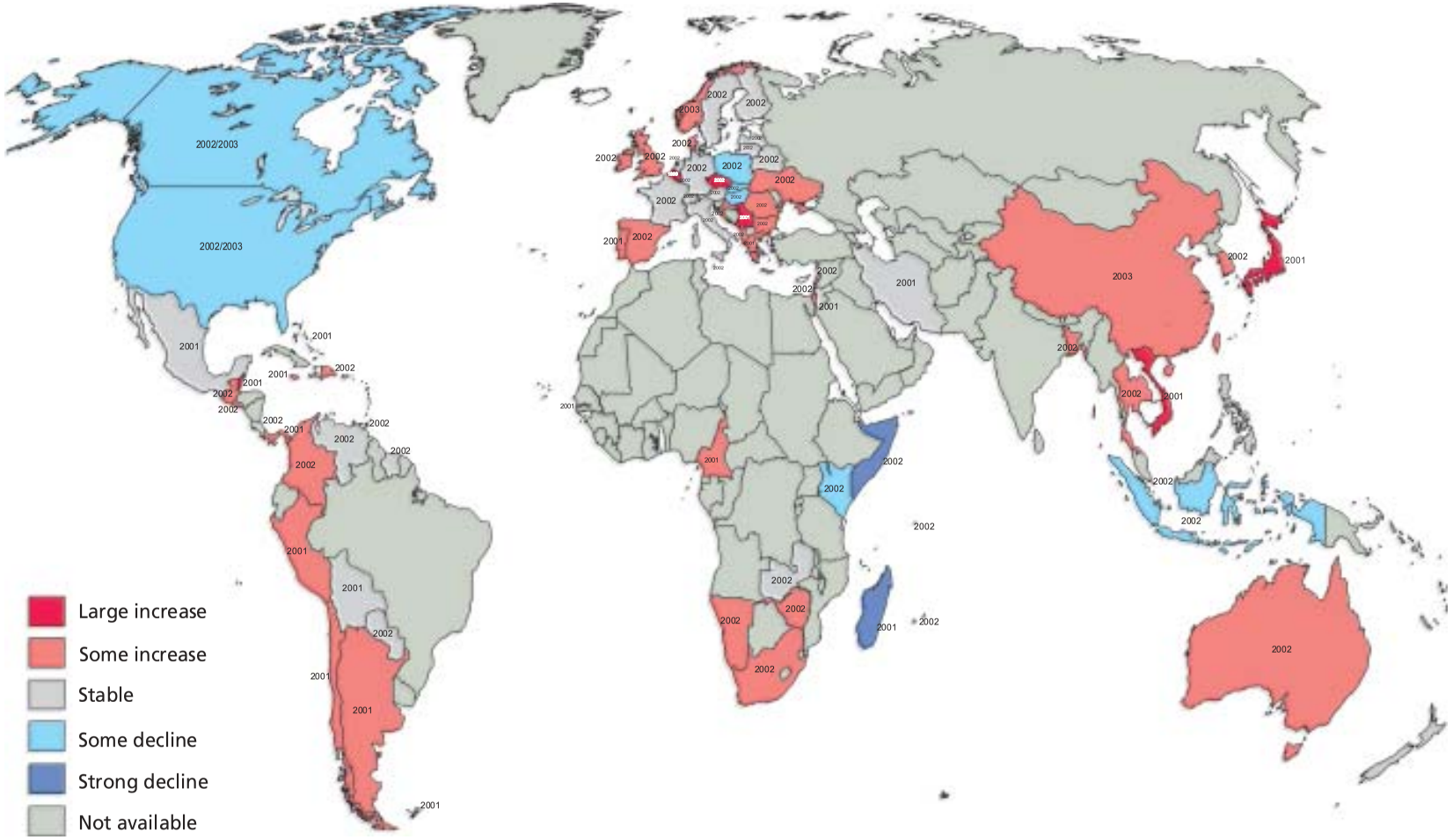
AFRICA

Ecstasy use in Africa is still limited. It tends to be concentrated in the southern parts of the continent, mostly affecting the local white minority and, to a lesser extent, South-Asian communities. Some of the ecstasy appears to be locally produced (South Africa) though most is still imported from Europe. Increases in ecstasy use for the year 2002 were reported from South Africa, Namibia and Zimbabwe. Though just 1% of those in treatment in South Africa reported ecstasy as their primary substance of abuse, 9% reported the drug as their secondary drug of abuse in 2003.

Increases were also reported from Mauritius and the Seychelles, while Kenya and Somalia reported falling levels of ecstasy use. In western Africa only Gambia (2001) and Cameroon (2002) reported some increase. In most of the rest of Africa ecstasy is virtually unknown.

ar) National Drug and Alcohol Research Centre, *Party Drug Trends, Bulletin*, December 2003.

Map 26: Changes in abuse of ecstasy (MDA, MDEA, MDMA), 2002 (or latest year available)



Sources: UNODC Annual Reports Questionnaires data, UNODC (Regional Centre Bangkok) Epidemiology Trends in Drug Trends in Asia (Findings of the Asian Multicity Epidemiology Workgroup, National Household Surveys submitted to UNODC, United States Department of State (Bureau for International Narcotics and Law Enforcement Affairs) International Narcotics Control Strategy Report;Bundeskriminalamt (BKA) and other Law Enforcement Reports.

Conclusion

The analysis of world drug markets presented in this report highlighted some positive elements. Affecting less than 5% of the age group 15 to 64, the prevalence of illicit drug use at the global level remains much lower than for tobacco, which affects close to 30%. As far as the two main problem drugs - heroin and cocaine - are concerned, the prevalence only amounted to about 0.5% of the same age group in 2002. Global production of opium is now some 80% less than at the beginning of the 20th century, prior to the introduction of an international drug control system.

Though considerable progress has been recorded, there is no room for complacency. Drug use remains at an unacceptable level and continues to bring misery to mankind. It also finances criminal and, to some extent, terrorist activities. Too many young people across the globe still die every year because of drugs, either as a direct result of drug abuse, or indirectly from exposure to infectious diseases, primarily HIV, transmitted by contaminated injection paraphernalia.

In the Political Declaration, adopted at the 1998 UNGASS, Governments decided to achieve significant progress in the reduction of illicit drug supply and demand by the year 2008. Information and data presented in this report show mixed results so far:

- Clear advances were made with regard to the global production of cocaine, which fell by 30% between 1999 and 2003, and 18% between 2002 and 2003. This decline was largely due to major control efforts in Colombia, the world's largest producer of cocaine. Global cocaine production is now at its lowest levels since the late 1980s. In the USA, the world's largest cocaine market, 2003 student surveys showed levels of consumption some 23% lower than in 1999, and more than 60% lower than in 1985. There was, however, an increase of cocaine consumption in South America and Western Europe over the last few years, but this trend may have started to lose momentum in 2003.

- In the case of opiates, progress were made in South-East Asia, the world's second largest source of illicit opium. There, opium production fell by 35% between 1998 and 2003, and by more than 50% between 1990 and 2003. These advances were unfortunately over-shadowed by developments in South-West Asia. In Afghanistan, opium production was virtually eliminated in 2001, leading to a 66% decline of global opium production in that year. This had positive consequences on the demand side. In several parts of Asia and Europe abuse of opiates stabilized in 2002. Drug related deaths declined in Western Europe by some 20% between 2000 and 2002 and the number of new IDU related HIV cases fell in Central Asia and Eastern Europe in 2002. However, Afghan opium production rebounded during the last two years. In 2003, it was already one third higher than in 1998 and there are indications that 2004 production could climb even further, resulting in plentiful supplies of opium and heroin on the international market.

- Available data for cannabis is less precise than for the other two plant based drugs. Nonetheless, all available indicators suggest that the cannabis market continued to increase over the last few years.

Cannabis production as well as global cannabis seizures rose over the last decade and are now back to the levels of the late 1980s. UNODC's Drug Abuse Trend Index showed an ongoing increase of cannabis use over the last decade and even some acceleration over the 2000-2002 period. Cannabis trend data suggested an increase in Europe, South America, Africa and in a number of countries in Asia. The market stabilized in North America, Oceania and some countries of South-East Asia.

- Data for amphetamine-type stimulants showed a mixed picture. The number of ATS laboratories dismantled clearly increased during the last decade, including over the 1998-2002 period. Seizures of amphetamines also showed a strong upward trend in the 1990s, but declined between 2000 and 2002. Similarly, UNODC's Drug Abuse Trend Index indicated, for the first time in years, a stabilization of consumption in 2002. Increases in methamphetamine use, however, continued to be reported from a number of countries in East- and South-East Asia. In North America and in Western Europe, following years of increases in the 1990s, the amphetamines market has remained largely stable in recent years.

- The trend was less favourable with regard to ecstasy. Seizures continued to rise. In many parts of the world, ecstasy use increased further in 2002. Nonetheless, there were signs that the upward trend might be losing momentum. While it continued to increase in many developing countries, ecstasy use stabilized in several West European countries and declined in the USA and in Canada in 2002/2003.

Conceptual developments in recent years offer prospects of reinvigorated drug control strategies. They reflect, for instance, the need to address the drug problem in a broader sustainable development context. A more integrated response to the twin sectors of drugs and crime is also emerging. The new paradigm of human security encapsulates this broader view of the problem. Finally, efforts are also under way to improve the understanding of drug epidemics, as well as the structure and functioning of drug markets, with a view to design more synergetic, dynamic and cost-effective interventions.

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Printed in Austria
V.04-53031–June 2004–2,000

Complete set:
ISBN 92-1-148184-8

United Nations publication
Sales No.: E.04.XI.16
ISBN 92-1-148185-6
Volume 1